

The Mining Journal

RAILWAY AND COMMERCIAL GAZETTE,

FORMING A COMPLETE RECORD OF THE PROCEEDINGS OF ALL PUBLIC COMPANIES.

No. 495.—Vol. XV.]

LONDON: SATURDAY, FEBRUARY 15, 1845.

[PRICE 6D.]

MINING MATERIALS.—TO BE SOLD, BY PUBLIC AUCTION, on Tuesday, the 18th day of March, 1845, at the IVY RIDGE CONSOLS MINE, in the parish of Upton, county of Devon, by Messrs. SKARDON and SON, the following very valuable MINING MATERIALS—viz.:

A WATER WHEEL, 24 feet diameter, 10 feet 3 inches breast, with cast-iron rings, sockets, and cylinder cranks; an 18 feet diameter WATER WHEEL, 2 feet 8 inches breast; with drawing machine, drum, and one crusher attached; a capstan, with oak axle and 4 cast-iron sockets; shafts, with pulleys and harness; two sets of gudgeons, chains, brasses, and straps complete; 150 fathoms of horizontal rods, 2½-inch round iron; 190 fathoms of 2-inch square iron; a large number of rod pulleys, and stands and brasses; two screw rods, loggheads, brasses, connecting checks, pins, and chains; two pendulums and wheel pit frames; three balance-bobs, with gudgeons, brasses, saddles, and sweep rods; sixty fathoms of 12-inch capstan rope; a large bell and stand, a horse wheel, whin, and other kibbles.

10 9-feet 10-inch pumps	2 7-feet 10-inch windbores
14 9-feet 12-inch "	1 10-feet 10-inch "
11 9-feet 12-inch "	1 7-feet 9-inch "
1 6-feet 12-inch "	1 8-feet 7-inch "
1 5-feet 12-inch "	2 7-feet 7-inch "
1 3-feet 12-inch "	2 Wood
12 9-feet 10-inch "	1 6-feet 12-inch working barrel
1 4-feet 10-inch "	2 9-feet 2-inch "
1 2-feet 10-inch "	1 9-feet 1-inch "
18 9-feet 7-inch "	2 9-feet 6-inch "
9 9-feet 13-inch matching pieces	1 9-feet 13-inch plunger-pole, with case, stuffing-box, and gland
1 15-inch H-piece	1 9-feet 11-inch plunger-pole, with case, stuffing-box, and gland
1 7-inch "	1 9-feet 7-inch plunger-pole, with case, stuffing-box, and gland
1 6-feet 12-inch clack door-piece	1 7-feet 8-inch plunger-pole, with case, stuffing-box, and gland
1 2-feet 10-inch "	1 7-feet 8-inch plunger-pole, with case, stuffing-box, and gland
2 6-feet 10-inch bucket door-pieces	11 9-feet 3-inch iron pipes
1 3-feet 9-inch "	6 short pieces, 3-inch do.
4 4-feet 7-inch "	

Wood matching pieces, of various diameters, shafts and whin pulleys; about 90 fathoms of half-inch chain; 25 fathoms 6-inch rope, nearly new, with a quantity of various sizes; stamps, axle, and frame, three stampheads, 20 pairs of plates, two pairs of connecting checks, with pins and brasses; a quantity of rod and flange bolts, of various sizes; a quantity of staples and glands, four wrought-iron set-offs, two gins, double and single blocks, screw stocks, with screw tops and plates; 56 fathoms of 10-inch, 8-inch, and 6-inch Mamel and Norway shaft-ropes; a quantity of Norway and other timber, of various dimensions; 27 fathoms of 1½-inch wrought-iron bucket-ropes, with pump boxes and valves, shaft rollers and swords, two pairs of chain bevels, a grinding stone, beams, scales, and weights, a circular copper bottom plate, and a square machine copper bottom ditto; a quantity of new and old iron, rods, doors, and windows of carpenters' and smiths' shops, and counting-house and material-house; eleven of various descriptions, with bucking irons, butchies, knives, and hammers; 1 36-inch smith's bellows, an anvil, and vice, and various other smiths' and miners' tools; a quantity of old and new brass, and various other useful materials, too numerous to mention.—The materials are in excellent condition, and a considerable portion of them new.

Further particulars may be obtained from Captain Choke, Plymouth, Ivy-bridge; or from Mr. Culloz, 27, Gibsons-street, Plymouth, who is authorised to settle all accounts, and to whom all persons having demands on the mine will please to send the particulars of their claims.—Dated Feb. 11, 1845.

SLATE QUARRIES FOR SALE.—TO CAPITALISTS. TO BE PEREMPTORILY SOLD, BY AUCTION, in the month of APRIL next, by order of the First Mortgagee, under a power of sale, unless previously disposed of by private contract, of which due notice will be given, ALL THOSE VERY VALUABLE AND EXTENSIVE SLATE QUARRIES,

known as the WEST DELABOLE and TREGAVERN QUARRIES, situate in the parishes of Endellon and Tintagel, in the county of CORNWALL.

This very eligible property possesses immense facilities for producing and shipping every description of slate, of the most profitable kind, in the county of Cornwall, on the Eddowes Canal, four miles from Bury Port and Killybegs harbours, and the nearest and most important works to the line of the South Wales Railway. These valuable and important works comprise a MINERAL DISTRICT of nearly ONE THOUSAND ACRES, covering twelve or fifteen workable veins of coal (from three to nine feet thick), and numerous pits of iron ore of excellent quality, together with a seam of black-band, two feet thick, running the whole extent of the estate—forming an almost inexhaustible supply of anthracite, iron ore, and fire-clay, which minerals have hitherto only been worked by level, above which there are many very rich veins. A newly opened and very profitable winning an extensive range below the level, with a new engine, &c., has also been completed.

Conveniently situate on the premises are two blast-furnaces, blast-engines, hot-air stoves, cast-house, remeries which have been at work for twelve months, producing a superior sample of anthracite iron.

These important works are ready for immediate operation, requiring but comparatively a small capital for carrying them on, presenting an opportunity to the ironmaster and capitalist of readily possessing most important and valuable iron-works and coal mines seldom so easily afforded.

For further particulars, and to treat, apply to Messrs. Davies and Sons, Angel-court, Throgmorton-street, London; or to Mr. Rice Jones, Loughor, near Swansea.

WANTED, A PERFECTLY QUALIFIED CAPTAIN, to undertake the entire MANAGEMENT of a small LEAD MINE: The mine is situated near Douglas, Isle of Man, and the salary will be about £140 per annum, with cottage, coals, &c.—Letters, with full particulars as to qualification, references, &c., to be addressed (post paid) to "A. D." care of the Editor of the Mining Journal, (Railway Commercial Gazette, 26, Fleet-street, London.

MINING SHARES.—A FEW ORIGINAL SHARES remain to be APPROPRIATED in some valuable LEAD and COPPER MINES, the reports of which, as well as all necessary particulars, may be known on application to Mr. Thomas, 14, Poultry, London.

TAMAR SILVER-LEAD MINING COMPANY.—Notice is hereby given, that a SPECIAL GENERAL MEETING of the shareholders of this company will be HELD at the City of London, at the City of London, on Friday, the 7th day of March next, at two o'clock precisely, for the purpose of considering a proposal, to be submitted at the meeting, for extending the operations of the company to the smelting of the silver-lead ores raised by this company, and of other matters which may be found convenient to smelt therewith, and for providing the funds necessary for this object, and for other purposes.

Dated this 6th day of February, 1845.

UNITED MEXICAN MINING ASSOCIATION.—Notice is hereby given, that a SPECIAL GENERAL MEETING of proprietors of this association will be HELD at the London Tavern, Bishopsgate-street, on Thursday, the 7th of February inst., at One o'clock precisely, to submit to them the instructions proposed to be given by the court of directors to their manager, Mr. Stoolbred, on the question of future engagements, previously to his return to Mexico.

By order of a court of directors, London, 8, Great Winchester-street, Feb. 11, 1845. JOHN MATHER, Secretary.

THE GENERAL HALF-YEARLY MEETING OF THE WEST COB MINING COMPANY will be HELD at the George and Vulture Tavern, Cornhill, in the city of London, on Thursday, the 6th day of March next, at One o'clock in the afternoon precisely, on the general business of the company, and also for the election of two directors and one auditor; and take Notice, that every proprietor intending to become a candidate to all the office of director or auditor, must, within fourteen days from the time of the insertion of this advertisement, signify by some writing under his hand, stating the place of his residence and address (which writing to be left within the same fourteen days at the office of the company, 39, Coleman-street, in the city of London), his intention so to become a candidate.

By order of the board, London, Feb. 4, 1845. T. M. SHADWELL, Secretary.

THE SILENT FRIEND: a medical work, on Human Frailty, Nervous Debility, constitutional weakness, excessive indulgence, &c.; with Observations on Marriage, &c. By B. and L. PERRY and Co., surgeons, London. Published by the authors, and sold at their residence; also by Strange, 21, Paternoster-row; and by Co., 63, Oxford-street; Noble, 109, Chancery-lane; Gordon, 146, Leadenhall-street; Parkes, Cornhill; and by all the principal booksellers in London.

THE CORDIAL BALM OF SYRIACUM is a stimulant and restorative in all spasmodic complaints. Nervous debility, indigestion, asthma, and consumption, are gradually and unperceptibly removed by its use, and the whole system restored to a healthy state of organization. Sold in bottles, price 1s. and 3s.

PERRY'S PURIFYING SPECIFIC PILLS have long been used as the most certain remedy for various complaints of every description, eruptions of the skin, pimples on the face, and other disagreeable affections, the result of an impure state of the blood. These pills are perfectly free from mercury, opium, and other deleterious drugs, and may be taken with safety without interference with or loss of time from business, and can be relied upon in every instance. Sold in boxes, at 2s. 6d., 4s. 6d., and 11s. each, by all medicine vendors.

Messrs. Perry and Co. may be consulted at their residence, 19, Berners-street, Bedford-square, daily, from eleven till two and five till eight. On Sundays from ten till twelve.

THE DIRECTORS of the BEDFORD UNITED MINING COMPANY hereby give Notice, that the ANNUAL GENERAL MEETING of the shareholders will be HELD at the office, 51, Old Broad-street, on Thursday, the 27th day of February inst., at One o'clock precisely, for the purposes required by the regulations endorsed on the scrip certificates.—London, Feb. 8, 1845.

THE PATENT GALVANISED IRON COMPANY beg leave to announce to the public, that they are prepared to SUPPLY ROOFING, SHIP SHEATHING and FASINING CHAINS, and the endless variety of articles to which iron, not subject to rust, may be applied.—Testimonials may be seen by application at the office, 8, Mansion House-place, London.

CAUTION.—THE PATENT GALVANISED IRON COMPANY having ascertained that certain PARTIES are INFRINGING their PATENT by the MANUFACTURE and SALE of a SPURIOUS and COUNTERFEIT ARTICLE, to the injury of the company and the detriment of the public, hereby give NOTICE, that this COMPANY have the SOLE PRIVILEGE of manufacturing and selling IRON COATED WITH ZINC, commonly called "Galvanised Iron," and that they will inflict the utmost PENALTIES of the law upon all PERSONS MANUFACTURING or SELLING the same without their authority, as well as upon all persons buying or using any Galvanised Iron not manufactured by them, or sold by their authority. 3, Mansion House-place, London, Jan. 24, 1845.

THE ELECTRIC TELEGRAPH.—COOKE AND WHEATSTONE PATENTEES.

THE ELECTRIC TELEGRAPH has been adopted on the following LINES:—BY ORDER OF THE LORDS OF THE ADMIRALTY for the South-Western Railway, as a GOVERNMENT TELEGRAPH from the ADMIRALTY, Whitehall, to PORTSMOUTH, above NINETEEN MILES.

On the same line, as a Commercial Telegraph from Nine Elms to the Port of Southampton, 77 miles—with a branch to Gosport, 15 miles.

On the London and Blackwall Railway. Great Western Railway, from London to Slough, 18 miles—the Windsor Telegraph. Farnmouth and Norwich Railway, a "Single Way," 20 miles.

London and Dover Railway, from Tunbridge to Maidstone, a "Single Way," 15 miles. Part of the Oldham Branch Railway. Part of the Leeds and Manchester Railway.

The Dalkey (atmospheric) Branch of the Dublin and Kingstown Railway. In addition to the above, the Telegraph is about to be laid down on several "single lines" in different parts of England, Scotland, and Ireland.

Mr. Cooke is prepared to grant licences for the use or erection of the Telegraph for entire districts of country, where the boundary can be accurately defined.

Mr. Cooke will also undertake to erect a Telegraph in any part of the United Kingdom for a fixed amount.

For further particulars apply to W. Fothergill Cooke, Esq., Kidbrooke, Blackheath; or to Robert Wilson, Esq., solicitor, 1, Copthall-buildings, London.

ANDREW SMITH'S PATENT WIRE ROPE, FOR MINING, RAILWAY, and SHIPPING PURPOSES.—The Royal yacht VICTORIA and ALBERT, PENelope, VIRAGO, HERMES, and several other ships in the Royal Navy, as well as the Merchants' Service, have been fitted with ANDREW SMITH'S PATENT WIRE ROPE; it is about half the size and weight of hempen rope and one-third cheaper.—For particulars apply to A. Smith, 29, Prince-street, Leicester-square; White Lion-court, Cornhill; or at the works, Millwall, London.

SIR W. BURNETT'S PATENT.—THE CHEAPEST and BEST PROCESS for the PRESERVATION of TIMBER, CANVAS, CORDAGE, COTTON, WOOLLEN, &c.—LICENSES GRANTED TO NOBLEMEN and GENTLEMEN to use the preparation; and to others, for the purposes of trade, on advantageous terms.

HYDRAULIC APPARATUS and TANKS, for the expeditious preparation of the above materials, at the principal station, MILLWALL, POPLAR, nearly opposite Greenwich.

Numerous SPECIMENS and TESTIMONIALS may be seen, and every information obtained, at the office, 53, King William-street, London-bridge.

ARCHITECTS and ENGINEERS contemplating the EXECUTION of WORKS with ASPHALTED BRICKS and ASPHALTE, as described in page 26 of the book of Instructions for Using Sessal Asphalt, have now an opportunity of SEEING the PARTICULAR MODE of EXECUTING such WORK, at the ROYAL BOTANICAL GARDENS, REGENT'S PARK, where a reservoir is being lined by this company, by order of Her Majesty's Commissioners of Woods and Forests.

Feb. 1, 1845. Sessal Asphalt Works, Stangate, London.

TO ENGINEERS, RAILWAY CONTRACTORS, MINING AGENTS, IRONMASTERS, and OTHERS REQUIRING FINE GREASE for MACHINERY and AXLES of every description.—JOSEPH PERCIVAL'S IMPROVED ANTI-FRICTION GREASE is—after trials on machinery and axles of every kind where constant friction is kept up—admitted to be the most useful, economical, and best preparation of the kind ever offered to the public.

References to scientific and practical men can be given, and testimonials shown of its great excellence.—Samples forwarded on application, at the manufactory, Green-street, Wellington-street, Blackfriars-road, London.

NOTICE TO INVENTORS.—OFFICE FOR PATENTS OF INVENTIONS and REGISTRATIONS of DESIGNS, 14, LINCOLN'S INN-FIELDS.—The patent and INSTRUCTIONS, gratis, and every information upon the subject of PROTECTION for INVENTIONS, either by Letters Patent or the Designs Act, may be had by applying personally, or by letter, pre-paid, to Mr. Alexander FLEMING, at the office, 14, Lincoln's Inn-Fields.

PATENT IMPROVEMENTS IN CHRONOMETERS. WATCHES, and CLOCKS.—E. J. DENT, 82, Strand, and 33, Cockspur-street, watch and clock maker, by APPOINTMENT, to the Queen and his Royal Highness Prince Albert, begs to acquaint the public, that the manufacture of his chronometers, watches, and clocks, is secured by three separate patents, respectively granted in 1836, 1840, 1842. Silver lever watches, jewelled in four holes, 6s. each; in gold cases, from £3 to £10 extra. Gold horizontal watches, with gold dials, from 8s. 2s. to 12s. each.

DENT'S PATENT DIPLÉSCOPE, or meridian instrument, is now ready for delivery. Pamphlets containing a description and directions for its use is, each, but to customers gratis.

OFFICE FOR PATENTS, 7, STAPLE INN, HOLBORN. J. MURDOCH (successor and late assistant to Mr. Hebert) informs INVENTORS and PATENTEES, that at his OFFICE they can obtain REFERENCE TO A CLASSIFIED LIST OF PATENTS, (THE ONLY ONE EXISTING), which shows at one view all the Patents ever granted for any particular object, whereby they may save much trouble and expense, and procure information as to the nature and extent of the INVENTIONS, and also the PATENTS OBTAINED, and USEFUL and ORNAMENTAL DESIGNS REGISTERED.

SPECIFICATIONS carefully prepared, and REPORTS of ENROLLED SPECIFICATIONS furnished on moderate terms. FINISHED and WORKING DRAWINGS executed with accuracy and despatch.

BY HER MAJESTY'S ROYAL LETTERS PATENT. SMART'S ELLIPTICAL CONVEX METALLIC FLOATS, FOR STEAM-SHIPS, as applied to the Bristol and Dublin steamer SHAMROCK, and to the SWIFT, between Newport and Bristol; and also the OSPREY, running between Bristol and Waterford. The patentees have now the satisfaction to announce, that, in addition to the ships already named, he has granted a LICENSE to the Bristol General Steam Navigation Company to use his PATENT FLOAT in all their steam-ships, comprising the Dublin, Cork, Waterford, and the various channel port steamers, varying in power from forty horses to two hundred each.

The numerous ADVANTAGES attending this valuable invention may be seen below:—1. The appearance of these floats is light and elegant.

2. Their durability and stability are indisputable, as may be instanced by the Shamrock steamer, which has been fitted with them for nearly twelve months, and has since steamed twenty-five thousand miles. The floats are now as firm and good as they were the first day.

3. Vibration is reduced so as to be scarcely perceptible; thus, the engines are eased, and both they and the ship suffer less wear and tear; and, from their peculiar form, they are strikingly advantageous in cases of strong head wind and heavy seas. Backwater and undulation is also reduced to its smallest quantity, and thereby lessening the chance of accident to small boats, barges, &c., which has hitherto been consequent on the operation of the common paddle-float, particularly in crowded rivers.

4. They more readily arrest the progress of a ship in chances of a collision, the concave side taking the water when this operation is performed. This is of great importance in preventing collisions, or backing off a shore.

5. They are very simple, and are easily applied to any paddle-wheel, at nearly the same cost as the common float, and THEY INCREASE THE SPEED MORE THAN ONE KNOT PER HOUR.

For license to use them (for which the charge is 10s. per horse-power), apply to the patentee, Mr. ROBERT SMART, 3, Grenville-place, Holwell's, Bristol, who will personally attend the fitting, if required, his travelling expenses being paid.

AGENTS. Messrs. George Lunell and Co., engineers and shipbuilders, Bristol. W. J. Le Feuvre, Esq., Southampton. J. N. Smart, Esq., Swansea. Thomas Mowatt, Esq., engineer, Leith, near Edinburgh. Scott, Sinclair, and Co., Greenock. W. H. Hutchinson, Esq., High Wycombe. J. R. Finn, Esq., Dublin and Liverpool. Jukes, Coulson, and Co., 12, Clements-lane, London.

Testimonials of the highest order, on application to the patentee or his agents. Bristol, December, 1844.

IMPORTANT TO ENGINEERS and OTHERS ENGAGED WITH WORK FOR RAILWAYS, GAS, and WATER WORKS, &c. PARK IRON-WORKS, SHEFFIELD.

The MACHINERY, TOOLS, STOCK, &c., of these justly celebrated works is to be DISPOSED OF, with early possession. The foundry is capable of turning out 100 tons of work per week, and the engineering department a considerable quantity of every description of work for railways, &c. The rent of the buildings, including a very good house for a principal or manager, is under £200 per year. Water conveyance to all parts of the world comes into the works, which are also within a shilling per ton delivery to any important railway station.

To view the same, and for other particulars, apply to Mr. W. Johnson, on the premises, at 25, Moorfields-street, London; or at Brynne Iron-Works, near Wrexham, on and after the 14th of February.

TO STEAM-ENGINE MAKERS.—The Commissioners for the better Paving and Sewerage of the Town of Liverpool hereby give Notice, that they are ready to RECEIVE TENDERS of CONTRACT for the FURNISHING, DELIVERING, and FIXING a STEAM-ENGINE, with boilers, pumps, and column, or stand pipe, and other works, at the Commissioners' Water-works, at Green-lane, in the township of West Derby, in the county of Lancashire, agreeably to specifications and requisitions, prepared by James Simpson, Esq., the engineer of the works, and deposited in the office of the said commissioners, No. 1, Parish Office, Fenwick-street, Liverpool.

Copies of the specification may be had on application at the said office of the commissioners, and sealed tenders must be sent in, addressed "To the Commissioners for the better Paving and Sewerage of the Town of Liverpool," on or before Tuesday, the 19th day of March next.

The commissioners do not bind themselves to accept the lowest tender, and further reserve to themselves the right of rejecting all tenders which are not deemed satisfactory.

Two approved sureties, at the least, will be required for the due performance of the works; and the names and designations of such sureties must be given in with the tenders.

By order of the commissioners, Liverpool, Jan. 30. EDW. G. DEANE, Clerk.

IRON STEAMERS.—WANTED, a PARTNER, with a capital, to an ESTABLISHED IRON FOUNDRY, situate on the western coast, of high connection, and better adapted than most others in the kingdom for the BUILDING and FITTING-UP of IRON STEAMERS, as well as for all other branches of the iron and engineering trade.—Apply to Messrs. Peppercorne, 2, Old Broad-street, City.

ST. KATHARINE DOCKS.—Notice is hereby given, that a SPECIAL GENERAL MEETING of the proprietors will be HELD at the Dock-house, Tower-hill, in the county of Middlesex, on Tuesday, the 25th inst., at Twelve o'clock at noon, for the purpose of considering the expediency of funding a portion of the floating debt of the company to an amount not exceeding one moiety of the present capital, and upon approval thereof, to empower the directors of the said company to adopt such proceedings for carrying the proposed measure into effect, as to them shall appear advisable.

By order of the court, JOHN HALL, Secretary. St. Katharine Docks, Feb. 11, 1845. N.B.—The chair will be taken at One o'clock precisely.

RAILWAY WHEELS.—Two years' very extensive experience has demonstrated that T. BANKS'S PATENT MODE of RENEWING the WORKING SURFACE of WHEEL TIRES, with STEEL, effects a SAVING OF FIFTY PER CENT. of the expense of railway wheel tires above any other plan hitherto used.

For TERMS of LICENSE for England, Scotland, and Ireland, apply to T. BANKS, ENGINEER, GERMAN-STREET, MANCHESTER.

The following firms have taken Licenses to Steel Wheels in their respective localities:—Messrs. Robert Stephenson, and Co., engineers, Newcastle-on-Tyne. Swayne and Bosvill, engineers, Millwall, Poplar, London. Kitson, Thompson, and Co., engineers, Leeds.

TO RAILWAY COMPANIES, ENGINEERS, and MACHINISTS.—FENTON'S ANTI-FRICTION METAL—A CHEAP SUBSTITUTE for BRASS in the STEPS and BEARINGS of STEAM-ENGINES and MACHINERY—possesses the following ADVANTAGES compared with that metal:—Increased durability, diminished friction, and consequent saving in consumption of oil, cheapness in first cost, not only in price, but also by a less specific gravity. It has been in use for some time on many of the principal lines of railway in the country.

Ingots, at 66s. per cwt., may be obtained from the patentees. FENTON and BOTT, 5, LOWER MOSLEY-STREET, Manchester.

PROSPECTUS of a PLAN for IMPROVING THE OUTFALL BELOW LYNN, AND FOR RECLAIMING FROM THE SEA THIRTY THOUSAND ACRES OF LAND, PART OF THE ESTUARY, CALLED THE WASH.

Between the counties of Norfolk and Lincoln. Capital £500,000, in 10,000 shares, of £50 each.—Deposit £2 10s. per share.

TABULARY. The Duke of Portland, Earl Fitzwilliam, Earl of Orford, Lord George Bentinck, M.P., Sir William Bagge, Esq., M.P., W. W. Chute, Esq., M.P., &c.

DIRECTORS. William Eagle, Esq., Joseph Wilson, Esq., Charles Muriel, Esq., George Capron, Esq., Martin West, Esq., Joseph Browne Wilks, Esq., The Mayor of Lynn, Richard Bagge, Esq., Edward Everard, Esq., &c.

LONDON BANKERS.—Messrs. Smith, Payne, and Smith; Messrs. Barclay, Bevan, and Co. COUNTRY BANKERS.—Messrs. Gurney and Co.; Messrs. Everards and Co. ENGINEERS.—Messrs. Rennie, for the Promoters; James M. Rendell, Esq., for the Town of Lynn.

SOLICITORS.—Frederic Lane, Esq., King's Lynn; Thos. Wing, Esq., Gray's Inn London, SURVEYOR—Mr. Edwin Durrant, King's Lynn.

PROSPECTUS. The object of the promoters is to recover from the sea a very extensive tract of land, which now constitutes a part of the great estuary called "THE WASH."

The measure now in contemplation was suggested by the success which has already attended several other works of a similar nature upon the adjoining coasts, by which many thousands of acres have been rescued from the overflowing of the sea, and converted into arable and pasture lands of excellent quality.

For the present, it is intended to limit the undertaking to the recovery of 30,000 acres; this will require an expenditure of about £500,000, which, deducted from £1,000,000, the value of the land, will leave to the shareholders a clear gain of £500,000, subject only to the claims and compensations of frontage owners.

The capital of the company will be £500,000, which will be divided into 10,000 shares of £50 each, upon which a deposit of £2 10s. is to be made immediately; but no further deposit will be required until an Act of Parliament, for which application will be made in the approaching session, has been obtained for incorporating the company, and conferring upon it the necessary powers.

But, although it has been thought prudent to make provision for raising £500,000, the estimated expense of completing the undertaking, it is confidently expected that it will not be necessary to call for more than 50 to 60 per cent. of that sum, as large tracts of land will be recovered shortly after the commencement and during the progress of the work, which may be made an available fund for prosecuting the undertaking, or be divided among the shareholders, as may be deemed most expedient. Between 9000 and 10,000 acres of the most valuable part of the land are fit for immediate embankment, and will be wholly recovered within two or three years after the commencement of the works.

Sealed application for shares to be made by letter (post paid), addressed to Frederic Lane, Esq., King's Lynn, Norfolk; or Thos. Wing, Esq., Gray's Inn-square, London, on or before the 17th of February, when the shares will be allotted, and no further application will be received after that day.

Inter est, at the rate of 4 per cent., will be allowed on all paid-up capital, from the passing of the Act, until a sufficient quantity of land shall have been acquired to cover the expenses and declare a dividend.

January 30, 1845. FORM OF APPLICATION. LEVEL OF THE WASH.

Sir,—I request that you will allot to me shares, of £50 each, in the above undertaking, agreeably to the prospectus; and I agree to accept such shares as may be allotted to me, and also to pay the deposit thereon, and to sign the Parliamentary contract and subscribers' agreement when required.

To Frederic Lane, Esq. Thos. Wing, Esq.

THE PATENT SAFETY FUSE, FOR BLASTING ROCKS IN MINES, QUARRIES, and FOR SUBMARINE OPERATIONS.—This article affords the SAFEST, CHEAPEST, and most EXPEDITIOUS MODE of effecting this very hazardous operation. From many testimonials to its usefulness with which the manufacturers have been favoured from every part of the Kingdom, they select the following letter, recently received from John Taylor, Esq., F.R.S., &c.:—"I am very glad to hear that my recommendations have been of any service to you; they have been given from a thorough conviction of the great usefulness of the Safety Fuse; and I am quite willing that you should employ my name as evidence of this."

Manufactured and sold by the Patentees, BICKFORD, SMITH, and DAVEY, Exeter, and Cornwall.

Transactions of Scientific Bodies.

MEETINGS IN THIS WEEK.

SOCIETY.	PLACE OF MEETING.	DAY.	HOUR.
Royal Botanic	Regent-park	Saturday	8 P.M.
Geographical	Whitehall-place	Sunday	8 P.M.
British Architects	16, Grosvenor-street	Monday	8 P.M.
Medical	Bolt-court, Fleet-street	Monday	8 P.M.
Medical and Chirurgical	53, Berners-street	Tuesday	8 P.M.
Civil Engineers	35, Great George-street	Tuesday	8 P.M.
Zoological	71, Hanover-square	Tuesday	8 P.M.
Society of Arts	Adelphi	Wednesday	8 P.M.
Geological	Somerset House	Wednesday	8 P.M.
Pharmaceutical	17, Bloomsbury-square	Wednesday	9 P.M.
Royal	Somerset House	Thursday	8 P.M.
Antiquaries	Somerset House	Thursday	8 P.M.
R. Society of Literature	4, St. Martin's-place	Thursday	4 P.M.
Medico-Botanical	32, Sackville-street	Thursday	8 P.M.
Royal Institution	Albemarle-street	Friday	8 P.M.
Philological	49, Pall-mall	Friday	8 P.M.
Mathematical	Crutwell-street, Spitalfields	Saturday	8 P.M.

INSTITUTION OF CIVIL ENGINEERS.

FEB. 11.—THE PRESIDENT (Sir JOHN RENNIE) in the chair.

The first paper read this evening was a description, by Mr. Thomas Hughes, Assoc. Inst. C.E., of the method employed for draining some banks of cuttings on the London and Croydon and London and Birmingham Railways, also a part of the retaining wall of the Euston incline plane. The method adopted was the introduction of Watson's drain pipes, which were made of the iron-stone clay of Staffordshire; their surface is pierced with numerous apertures, small externally and enlarging inwardly, which form prevents their being clogged by the earth, and allows whatever enters to pass freely into the pipe. In their application on the London and Croydon Railway, a longitudinal trench, four feet deep, was dug on the crown of the bank, at a few feet from the edge, and other trenches, about thirty feet apart, descended from it to the open drain by the side of the permanent way. On the London and Birmingham Railway, the descending trenches were eighty feet apart, and varied from three feet to six feet in depth; the pipes were introduced into these trenches, and the clay which had been dug out was then laid over the pipes; from the longitudinal line of pipes upright pipes were occasionally introduced for the purposes of ventilation. The panels of the retaining wall were drained by boring holes through the brickwork at given distances with a powerful auger, worked by a machine, and then inserting cast-iron pipes of the same form as those of clay. This process proved so effectual, that the walls, which before showed evidence of water being lodged behind nearly the whole length, were now evidently drying fast, and the water oozed out from the pipes at all times, even during the severe drought of 1844.—The paper induced an animated discussion upon retaining walls, in which Mr. R. Stephenson gave an interesting account of his views at the time when he designed the walls of the Euston incline, the changes which subsequent experience had worked in his opinion, and the reasons which induced him to adopt the process of staying the walls with cast-iron beams, stretching from one side to the other.

The next paper read was a description of the Ouse Bridge, on the Hull and Selby Railway, by W. B. Bray, Grad. Inst. C.E.—The Act for this railway was obtained in 1836, and it forms, with the Leeds and Selby, which was opened two years previously, a direct communication between Leeds and Hull; they were both surveyed and executed from the designs of Messrs. Walker and Burgess. The river Ouse, at Selby, is 196 feet wide and fourteen feet deep at low water; the tide rises four feet at neap tides, and nine feet at spring tides. The bed of the river consists of silt, resting on a bed of quicksand, beneath which is a hard clay. The foundations of the abutments were formed of piles, driven into the clay, and on these longitudinal sleepers and transverse sills were tenoned, the intermediate spaces being filled with broken stone, grouted with thin mortar. On this platform brick abutments, with stone quoins, string courses, and copings were built; they were subsequently tied by wrought-iron rods to heavy stone piers. There were six piers placed in pairs, which were founded on piles driven into the clay, and tenoned to receive the cap sills, on which cast-iron frames were strongly bolted, the ends being furnished with cutwaters of cast-iron plates. The superstructure consists of six ribs of cast-iron, an inch and a half thick, resting on transverse girders, one being placed under each line of rails, and one under each handrail, the rails themselves being laid on longitudinal sleepers, twelve inches wide and six inches deep. In the Act there was a clause requiring that this bridge should have an opening arch, for the passage of steamers and vessels with fixed masts; this consists of two similar leaves, each keyed on to a cast-iron shaft, nine inches square, with turned journals, plunger blocks, and brasses. The total weight of ironwork is 590 tons, and the erection of the bridge was let to Mr. Briggs, of Ferry-en-Trent, and the British Iron Company. The communication was accompanied by a well-executed model, presented to the institution by Mr. James Walker.

Mr. J. R. Redman exhibited a portion of a fender pile which had been driven in the works of the New Terrace Pier, at Gravesend, in 1843, and in which the *teredo navalis*, or pipe worm, had made great inroads. It appeared, however, that the ravages of this insect were confined to a space of about three feet above the level of low water spring tide, and that, therefore, if wood work was well defended by copper sheathing or scupper nails at and below that point, no great injury would be received by piles in any situation.

The meeting was adjourned to Tuesday evening, the 18th instant, when the following paper will be read:—"Description of the Great Britain steam-ship, with an Account of the Trial Voyages," by T. R. Guppy, Assoc. Inst. C.E.

TALACRE COAL AND IRON COMPANY.

During the present week, the Court of Queen's Bench in Dublin has been occupied with the hearing of the notorious case, Howard v. Shaw, for which a new trial was granted last term, in consequence of Mr. Justice Crampton having refused to admit evidence for the defendant to prove the company a fraud.

Mr. WHITEHEAD, in opening the pleadings for Howard, stated, that the case came before that Court under the following circumstances:—Levison, the payee of the bills in question, passed them to the plaintiff (whether for valuable consideration, the jury must decide); when they became due, Mr. Shaw had left Ireland, and a commission in bankruptcy was therefore issued against him. The debt was proved before the Commissioners, when the defendant went before the Lord Chancellor on a petition, that the bills were obtained fraudulently and without any consideration. On this, the Lord Chancellor directed issue to be joined in the Court of Queen's Bench, the plaintiff bringing his action, and the defendant pleading non-assumpsit.

Mr. FITZGERALD, on the part of Shaw, would prove to the satisfaction of every man, that his unfortunate client was made the dupe of as gross and criminal fraud as ever was perpetrated, by which Mr. Shaw, among other unhappy victims, had already been plundered to the amount of 8000*l*. After designating the originators as a "gang of fraudulent conspirators," every man of whom ought to be indicted, he concluded by calling witnesses.

One of these, the agent of Sir E. Mostyn (from whom the alleged pipes had been purchased at a mere trifle), in the course of his examination, stated, that when Levison and Baker commenced fixing machinery, as if any coal could be raised, he remonstrated with them upon the folly of such expense for the working of a mere shell, telling them plainly there was no coal there whatever. On this, they replied, that that mattered not; it was done for a purpose, about which witness knew nothing. He deposed also, that coals had been shipped to Dublin as Talacre coal, and advertised as such, whilst they came from the Bryn Colliery, nothing being ever raised from the former place. Another witness stated, that Levison caused an old mine, previously exhausted, to be "chipped" up, so as to give it a fresh appearance. Round this Shaw was taken; and, though the pit was only a few yards long, he was walked round the pillars—describing a figure 8—till, having gone over nearly that number of miles, he could proceed no farther, and was informed he had not yet witnessed half the extent of the mine.

Only three witnesses had been examined up to the second day of the trial, and the case was likely to occupy the remainder of the week. It appeared to excite intense interest throughout the entire city, and the court was crowded to suffocation during each sitting.

DESTRUCTIVE FIRE AT THE HAWARDEN FOUNDRY AND IRON-WORKS.—On Thursday, the 6th inst., a very disastrous fire broke out on Mr. J. Rigby's establishment at Hawarden, by which considerable property has been destroyed. Smoke was first observed issuing from the second floor of the pattern warehouse, which is in all three stories high. Unfortunately, no engines being on the spot, much time was lost before those from Chester had arrived, by which time the roof and floors of that department had fallen in, and every effort to save any portion of the patterns proved unsuccessful. Fortunately, the fire was confined to this one building—for the foundry, being separated from the pattern warehouse by a stable and row of cottages, the former was speedily torn down, and the cottages well played on by the engines, and thus further destruction stayed. The only account that can be given of the origin of the fire is, that one of the boys having snuffed a candle with his fingers, whilst looking for a pattern in the evening, thoughtlessly dropped the lighted wick, and occasioned the accident. The injury done the works is estimated at 8500*l*, the whole of which is covered by insurance in the Alliance Office. We are authorised to state, that the fire will not impede the execution of any contract in which the concern is engaged.

ARTIFICIAL RAIN.—We are informed, by an American correspondent, that rain has actually been produced, in two separate instances, by Prof. Espy, by setting small prairies on fire, and thus "causing clouds to form, and rain to fall," on an otherwise clear day.

IRON STEAM-VESSELS.—We understand the proprietors of the Ebbw Vale Iron-Works have determined to put on a line of steam-ships between Newport and Liverpool; the first vessel, the *Iron Prince*, is now advancing under the hands of numerous artisans. It is to be hoped that this great boon to the port will experience the best support that the inhabitants of Newport can afford to it.—*Monmouthshire Merlin*.

PILBROW'S IMPROVEMENTS IN ATMOSPHERIC PROPULSION.

Having had our attention repeatedly called to this invention, and the public interest being deeply engaged in all inventions having for their object improvement in railway travelling, we are induced to afford space for a popular sketch of the various particulars of this important discovery.

A pipe or tube similar to that hitherto devised for the propulsion of carriages on the atmospheric principle is placed between the rails of a railway, but lying in a hollow or channel dug in the earth, and fastened to the sleepers. At intervals along this tube there are inserted spindles, with rollers or pinions, or small cogged or pinioned wheels, made or cast in one solid piece of iron, the upper portion having teeth or cogs around it, and the lower the same, so that the cogs of either may correspond exactly. The portion between these cog-wheels forms a spindle, or axis of connection between them, projecting top and bottom, and forming centres or pivots to work in bearings. The tube has projections made upon it at the places proposed to place these pinions, and has also an opening in it to allow the lower portion of the pinion to enter and project a short distance into the hollow of the tube, the upper and lower ends of the spindle, or the pivots of the pinion working in holes made for that purpose in this projecting-box, which has a support carried up; but that part of the spindle between the toothed portion does not touch, but passes through a hole made in the tube and box, which is larger than the spindle, but there is a flat or conical part, which is allowed to touch; these pinions are, therefore, free to turn, when acted upon in any proper manner, and are partly inside and partly outside the tube. It is proposed, then, to make a piston thus:—Upon a strong iron bar, having shoulders and screws at each end, several discs of iron, wood, and leather, are placed. A disc of iron, having a hole through the centre to fit to the smaller part of the bar, goes home to the shoulder; next to this disc is placed one of leather of larger diameter; again, to this is placed another disc of iron, dish or concave on the inner side, to correspond with the convexity of the other iron disc. Before this may be placed a conical block of wood, and when all screwed up together by the nut, will form the one part of the piston, the leather expanding against the side of the tube, and rendering it air-tight. At the other end of the bar, the same arrangement is repeated, making a double piston, for greater security in passing the pinions, and steadiness of travelling. To the piston thus constructed is attached the rack. To form this, a rod of iron is taken of suitable strength, rather longer than the space between two pairs of the pinions on the main, so that it may be between or in contact with one pair before leaving the other. This rod having a strong eye at one end, and bent down, and the eye placed upon the end of the bar, and fastened up firmly to the wooden cone by the nut, the principal part of the rod itself will be in the square channel upon the main, passing up through the slit or opening. Upon this rod is placed a number of pieces of iron, wood, and caoutchouc, each having a hole through it the size of the steel rod, which, when placed regularly against each other, will form a double line of cogs, of size and shape matching with the pinion. A sufficient number of these being placed upon the rod to make the required length, they are all secured on, and kept up tightly together by a nut secured to the extreme end of the rod, which then forms the piston rack, and this being very nearly the size of the square channel on the main, will pass along when dragged by the piston, and come into contact, and gear with the lower pinions as it passes between them. It is upon this very ingenious principle, then, that the piston and piston rack are composed; the former is fitted air-tight into the tube, having attached to it the piston rack, which is so placed, as that when the piston is allowed to pass along the tube, the rack will act upon, and be in gear, with that part of the pinion, and if a vacuum be formed by pumping out or exhausting the air from the front of the piston in the usual manner; the pressure of the atmosphere urges this piston onwards towards the vacuum, and, of course, the rack with it, and that being in gear with the pinions, cannot advance without turning them as it passed, and, therefore, that portion of the spindle and pinion which is outside the tube. To the under part of a railway carriage there is attached a rack similar to the piston rack (with the exception, of course, of the piston), which is called the carriage rack, the front end being tapered to render easy its entrance between the pinions; this rack is made to correspond with the internal or piston rack, so as to be in gear with the opposite pinions at one and the same time—therefore, by placing the rack in such a manner as to place the pinions in gear with the cogs on each side, both racks will move together, and in the same direction; if the vacuum, then, has such an effect upon the piston as to cause it to advance, both racks must advance also simultaneously, and in the same relative position, one pinion being acted on in advance before the other has ceased, and, therefore, as long as the power continues, and the piston advances, the carriage will do the same to the end of the tube, arriving at the same moment with the piston, as neither can, by possibility, arrive before the other—thus would the carriage and all attached to it be propelled. This, then, is a short description of this beautifully simple, but important, discovery; as yet we refrain from giving any decided opinion on its merits or alleged objections, which we feel the less necessary, a company being already in formation to test the system fully and fairly over a line of ten miles near the metropolis, to be laid down under the immediate superintendence of the patentee; this much, however, we will admit that we can see no defect whatever in the principle, and this being generally admitted, we are glad to find the opportunity afforded of testing its merits, and modifying any defects which may then become apparent—thus removing any difficulty which may be found in practical working.

PROXY VOTING IN PUBLIC COMPANIES.—The right of voting by proxy in railway, mining, and other public companies, although at all times legal, has, until very recently, been subject to a heavy pecuniary charge, to which the generality of shareholders were unwilling to submit, unless where the exercise of the vote was called for upon strong grounds. Under the old law, no proprietor could vote as proxy for an absent proprietor without the production of an authority, such instrument bearing a 30*s* stamp. This was found to be a practical grievance, inasmuch as it was not always convenient for shareholders residing in distant parts of the kingdom to attend in person the meetings of companies in which they held shares. By the Act of the 7th of Victoria, cap. 21, the stamp duty has been reduced to 2*d*. 6*d*, but the statute contains some stringent provisions, which will, it is conceived, have a salutary effect. The 6th section provides, that any such instrument shall authorise the proxy to vote upon any matter at any one meeting of the proprietors or shareholders of the company, the time of holding such meeting being specified in such instrument, or at any adjournment of such meeting, the instrument being no further available. In order to prevent evasion of the law, the seventh section prohibits the Commissioners of Stamps from stamping any proxy paper after the same has been signed; and if any person shall sign any proxy paper not duly stamped, or shall vote or act as proxy under authority of an instrument not duly stamped, the party becomes subject to 50*l* penalty, and every vote so given becomes absolutely null and void.

NORTHUMBERLAND RAILWAY.—We perceive that the committee of direction have determined to follow the example of other undaunted companies, and prosecute their claims before Parliament, despite the unfavourable decision of the Board of Trade. At the same time, an offer has been made (in imitation of that proposed by the North Kent line) to purchase, at the rate of 2*l*. 10*s* per share (the original deposit) the shares of those proprietors who may be unwilling to incur the risk of additional expense. This, on the face of it, is an earnest of bona fide and generous dealing—the more welcome now, when so many schemes are abroad, little better, it is to be feared, than gambling speculations; and it also proves that the directors themselves have every prospect of ultimate success, founded on good and substantial reasons. We have no doubt but that the merits of the case will be fully entered into, and that justice done which the interests of the company and the community demand.

EXTRAORDINARY SPEED ON A STEAMER.—The *Swift* steamer, although of but 90-horse power, running between Bristol and Newport, is said to steam fifteen statute miles per hour, and she has been known to exceed that speed by nearly a mile. This very unusual rate of going, however, of so small a steamer may be accounted for, in a great measure (and it is but justice to mention it), by her having the benefit of Mr. Smart's convex propellers, which are now being much adopted, particularly at Bristol—a place greatly spoken of, and held in high estimation for turning out steamers of first-rate capability; she was built, and her engines made, by the much experienced firm of George Lunell and Co., of Bristol.

THE TRUCK SYSTEM.—(From a Correspondent.)—We regret having to record another instance of this nefarious practice being still unlawfully persevered in.—D. Nichol, a contractor on the Manchester, Bury, and Rosendale Railway, at Ringley (near Oldham), was summoned for paying Henry Stephens, a quarryman, otherwise than in current coin. He had been in Nichol's service twenty-one days, and had received in provisions, by tickets from a shop, 1*l*. 13*s*, and 6*d*. and 13*s*. in money.—The magistrates considered it somewhat unfair to claim money already paid in tickets, but, it not being a legal payment, the award must go against the contractor.

THE IRON TRADE—THE HOT-BLAST.

A number of gentlemen, wishing to convey to Mr. Neilson, the inventor of this valuable process, a testimonial of their admiration of his genius as an inventor, and also their personal esteem, have given an entertainment to him at Glasgow.

On the occasion of the CHATELAIN (the Lord Provost) proposing Mr. Neilson's health, he observed, that in his youth that gentleman was distinguished by great ingenuity, and by the extent of his inventive resources, having as early as 1820 turned his attention to the important subject of economising fuel in the smelting of iron; and on this point he was frequently consulted by the principal ironmasters of Scotland. There was nothing selfish in the investigations which he followed out; he showed every desire to give a knowledge of his views to the world; and in 1825 he published a very ingenious paper on the smelting of iron ore in the *Mechanics' Magazine*, in which he showed a great deal of research into the early history of ironmaking, and specially discussed the question as to the variations in the quantities of iron produced in the furnaces in summer and winter. In the years 1826-7, Mr. Neilson carried on many expensive and laborious experiments, and in 1828 was rewarded with success, having that year secured his patent for the hot-blast. This was, perhaps, one of the most successful patents that ever issued from the patent office. It was well known that there was scarcely one in a thousand the integrity of which could be maintained; but this was one so unique, so excellent and perfect of its kind, that it had been maintained, even in the face of the most powerful opposition ever, perhaps, wielded for the destruction of any patent. The effect of Mr. Neilson's invention had been to change the whole face of the iron trade, and to place it in a position which it never before occupied in Scotland. In 1828, when the patent was obtained, the iron trade in Scotland did not exceed 60,000 tons annually, while at present it amounted to about 400,000 tons, and was the means of giving employment to thousands and tens of thousands of our operative population. Had it not been for the invention of Mr. Neilson, our iron manufacturers could never have held up their heads against the old established manufacturers in England and Wales—in fact, our coal was not suited for competing with the Welsh; and the black-band would have been lying like useless clay in the earth, had it not been for the invention of the hot-blast.

At a subsequent period of the evening, Mr. Neilson's invention was very honourably spoken of by Mr. Wilson, a gentleman of considerable talent and experience in the vicinity of Glasgow, who, after comparing the respective exertions of Watt and Mr. Neilson, continued, by observing that the object and result of Watt's invention was (by condensing in a separate vessel) the saving of fuel; and the remuneration he asked and obtained was a per centage of this saving. In like manner, the object and result of Neilson's invention was the saving of fuel, and that principally in the manufacture of iron. It might at first sight be supposed that the coal proprietor would say—no thanks to these geniuses for inventing that which diminishes the use of my property—coal; but look to the effect of these inventions. Watt's improvement on the steam-engine, together with our abundant resources of coal, had enabled the country so to extend its manufactures of cottons, &c., as almost to supply the whole world, and by this great increase of manufacture, was the immense increase of the consumption of coal and iron. Neilson's invention had increased the total consumption of coal in Scotland to an enormous extent, in the making of iron. Before the invention of hot-blast, the quantity of coal used in the manufacture of iron in Scotland would be about 300,000 tons a-year, and now above one million tons were used, and these million of tons producing eight times the quantity of iron the 300,000 tons did. Who had benefited so much by Neilson's invention as the mineral proprietors? Their revenues must have increased in proportion to the increase of the manufacture of minerals into iron, and as the manufacture of iron had hitherto been principally situated in Lanarkshire, the proprietors in that county had derived the benefit.

Mr. NEILSON, in acknowledging the compliment, alluded in satisfactory terms to the state of the iron trade, and observed, in reference to its prosperity in Scotland, that it had of late years increased in that country to a great extent. At the commencement of 1828 it amounted to about 45,000 tons annually, and now it was nearly 400,000 tons. Now, if the iron trade had increased without the hot-blast at the same rate as it had with it, what would have been the amount of fuel required? About two million tons more of coal would, in that case, have been necessary. If the same quantity of iron as was now made was blown with the cold-blast, it would require two millions of tons more of coal than was at present used with the hot-blast. If the quantity of iron that was required in the country was to be made by the cold-blast instead of the hot, it would have been found that the ironstone, and the coal necessary to work it, would have been out of all proportion to each other. The demand for fuel for the steam-boats was immense, and this, with other causes, would have greatly reduced that article. The quantity now made annually was upwards of 40,000 tons—whereas, before he began the trade, bar-iron had to be imported into Scotland. This branch of the iron-trade was as yet only in its infancy. The number of iron steamers, however, that were now made—upwards of twenty-two having last year been sent out of the Clyde, and about 3000 or 10,000 tons being required for this line alone—showed that it was a trade which would yet turn out to be one of vast importance. He had no doubt that, if the proprietors, and tenants of minerals went hand in hand, and if the tenants were not too hardly dealt with, as in some instances they were, this trade would go on increasing to an enormous extent, for there was not a deficiency of malleable iron made in this country to supply the market.

This assertion, derived from authority so high and incontestible, is deserving of the greatest attention; it bears out fully all the anticipations which we have lately so confidently avowed respecting the prosperity of the iron trade, especially furthered by the general adoption of iron ship-building; and we are happy and proud to find our views so positively confirmed in every respect—both cause and consequence—by so high and indisputable an authority.

RAISING SUNKEN VESSELS.—We have before us the prospectus of a company (the Universal Salvage Company) which, unlike many speculations of the day, bears upon the face of it the stamp of utility and importance—the object of which is to bring before the public the invention of Mr. Edward Austin, who has for many years devoted his unceasing attention to the discovery of a method for raising sunken or wrecked vessels. The difficulty of such undertaking is at once apparent; thousands have tried it—some have partially succeeded—more completely failed; a few, indeed, wiser or more fortunate than their brethren, brought their enterprise to a satisfactory and profitable result, but none have matured any plan, or propounded one tangible and undisputed principle, for obtaining this desirable, and, indeed, most important, object—the salvage of sunken property. The method suggested by Mr. Austin is at once simple, and in accordance with the laws of natural philosophy; subject to none of the objections which have shackled the diving-bell and other similar inventions so inextricably, as to confine their use to limited and specific purposes, it is possessed of the adapted principles of science, and, after a critical examination, we can see no reason why it should not succeed, everything appears so perfect, and, in fact, so self-evident. The mode by which the object is to be attained is the sinking of collapsed or exhausted bodies attached to chains, which are to encircle the sunken vessels, these air-tight cases being filled. If such results can be accomplished, there is a large field to the parties whose property they recover, and to the company, who take the duties of salvors. Mr. Austin is very sanguine of success, and his confidence is based on experiments made before nautical and scientific men of undoubted talent, all of whom have pronounced decidedly favourable opinions. In the year 1840, many ineffectual attempts were made by divers and others to raise the brig *Mary Ann*, heavily laden with iron pipes and a general cargo, sunk off Southend in nine fathoms water. After six weeks of great perseverance and labour, attended with considerable expense, the parties abandoned the enterprise. Mr. Edward Austin then commenced his operations on the above vessel, and in two hours and twenty minutes he slung her; within two hours after, the vessel was raised to the surface of the water—proving, beyond doubt, the power and utility of his method of sinking and raising sunken vessels.

OPENING OF THE MARYPORT AND CARLISLE RAILWAY.—On Monday last, this line was opened between the respective towns of Carlisle, Aspatria, Maryport, and Wigton. It was perfectly successful, and must be the means of attracting much traffic, and affording other important advantages to the various neighbouring localities, inasmuch as it completes the communication between the east and west seas, and affords to the counties of Cumberland and Northumberland an excellent medium of intercourse and traffic. From Maryport to Carlisle is a distance of twenty-eight miles. It passes through a country rich in coal, lime, and freestone, and will give accommodation to a large agricultural and manufacturing population. The line was commenced in May, 1837; there are no tunnels, and no very deep cuttings or high embankments on the line; the heaviest cutting is at Aspatria, where between 300,000 and 400,000 cubic yards of heavy clay and wet sand had to be removed, and was found to be a work of great labour and difficulty. The bridges on the line are numerous, but not difficult, only two rivers, the Caldew and the Waver, being to cross one each; the total number of roads crossed with great skill by Messrs. Blackstone and McKay. The steepest gradient on the line is 1 in 208, and varying from this to 1 in 190. The deepest cutting is thirty-six feet, and the highest embankment is thirty-seven feet. The cost per mile will be about 10,000*l*, exclusive of engines and carriages. By the opening, four or five new collieries will be brought into operation, the principal part of the produce of which will be shipped at Maryport for the Dublin and Belfast markets, and part will be sent to Carlisle, where they will compete with the coals from the pits of the Earl of Carlisle, near Brampton. The coals are of excellent quality, and a large demand for them is calculated upon. The trains will not run on Sundays; but this accommodation will be obtained as soon as the line is made use of by the Post Office. With respect to the paying qualities of the line the directors are sanguine. Maryport is a thriving sea-port, with a good harbour, capable of great improvement and extension; and the inhabitants being spirited and enterprising, it bids fair to rise to considerable importance.

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SOLICITORS.
George Ogil, Esq. Great Winchester-street, London
James Watt and Co. North Cumberland-street, Dublin
PARLIAMENTARY AGENTS.

Messrs. Parratt and Wainman, House of Lords
Messrs. Jones & Wainman, House of Commons

Thomas W. Youngusband, Esq., 4, Great Winchester-street, London
William Galt, Esq., 17, North Cumberland-street, Dublin

A careful estimate of the traffic has been made, and the following results may be relied on:

10,000 passengers per annum, 14d. per mile, allowing each passenger to travel 58 miles, at 6s.	£33,000	0	0
Arrears, private carriages, &c.	2,000	0	0
Wages, the cattle, &c., 5d. per ton per mile—supposing each ton carried over 33 miles, 1000 tons per week	41,250	0	0
Tools, 73 miles, at 9d. per mile	890	0	0

Gross receipts	£77,070	0	0
Deduct for working expenses one-third	25,390	0	0
Leaving to be divided	£51,680	0	0

more than 54 per cent. on the proposed capital.

Prospectuses and applications may be had of George Ogilvie, Esq., London, and Messrs Watt and Co., Dublin, solicitors to the company; of the following brokers—Messrs. Boyle, Low, Pim, and Co., College-green, Dublin; James Jamieson, Esq., Bank-street, Leeds; Messrs. Farquharson and Co., George-street, Edinburgh; Mr. Thomas Leverton, Liverpool; Messrs. Casswell and Sons, Manchester; Mr. John Reid Glasgow; Mr. Herbert Halliday; Mr. James Cardwell Hunsdell; Mr. William Lee Chilton; and of the secretaries, at the temporary office of the company, 4, Great Winchester-street,

STRASSBOURG AND PARIS RAILWAY.
Capital 60,000,000 fr., or £2,400,000, in 120,000 shares, of 500 fr., or £20 each.
Deposit £2 per share.

prospectuses will be duly issued; in the meantime applications for shares may be addressed to the provisional committee, at the office of their solicitor, George Ogil, Esq., Great Winchester-street, Broad-street, London.

PARIS AND ST. QUENTIN RAILWAY COMPANY,
HAVING ITS
JUNCTION ON THE GREAT NORTHERN RAILWAY AT CREIL.

Capital 35,000,000fr., or £1,400,000, in 70,000 shares, of 500fr. or £20, each.
Deposit 50fr. or £2 per share.

PROVISIONAL COMMITTEE.
Gratuites Commissaires:
Mons. J. Cordier, Member of the Chamber of Deputies.
Mons. Le Marquis Henry de Dion, landed proprietor (propriétaire).
Mons. Kynseous, jun.; banker, Paris.
Mons. A. H. Neville, civil engineer, Paris.

BANKERS.
Mons. Mullis, landed proprietor (propriétaire).
Mons. du Beausay, landed proprietor (propriétaire).
Sir Joshua Wainman, director of the Chester and Birkenhead Railway, &c.
William Jackson, Esq., chairman of the Chester and Birkenhead Railway, &c.

Messrs. Kymons, Jun., and Co., Paris.
Smith, Payne, and Co., London.
Bank of Liverpool, Liverpool.
ENGINEER:

J. M. Rendel, Esq., R.E.S., Vice-President of the Institute of Civil Engineers,
SOLICITOR.
W. Burdett-Coutts, Esq., Mr. King's Arms-yard, London.
Prospectuses and forms on which to make the application for shares are now ready, at the temporary offices of the company, 20, King's Arms-yard, London.
—No applications for shares will be attended to except on the above-mentioned forms.

PARIS AND LYONS RAILWAY (C. Lafitte's Company).
—Notice is hereby given, that, in conformity with the terms of the report and circular, addressed and sent by the English directors to each of the shareholders in August 1845,

in the undertaking, and the deposits paid upon their letters of allotment accordingly remain in the hands of the English directors, subject to the order of the respective parties.

Allotment Letter, No. 43 for 30 shares—Deposit \$50.

43	50	100
131	50	100
131	50	100

254	10	20
389	150	300
391	50	100
893	20	40
411	75	150
437	25	50
558	40	80

569	60	120
584	25	50
585	30	40
637	100	200
694	50	100
696	100	200

705	60	120
767	50	100
788	10	20
798	40	80
843	50	100

The English directors anticipate the possibility that their report and circular may not be received some of the shareholders, and will be made in any such case on by the

29th Inst. to entertain an application by a shareholder to remain in the company. In other cases they invite a communication from the parties interested in the above debts, and their directions as to the repayment of them.

By order,
 ED. AINS, Secretary.

The retiring directors may be re-elected.
The Transfer Books will be closed on Monday, the 17th of February, and not re-opened until after the said general meeting; on the 27th.
By order of the board of directors, 38

LONDON AND GREENWICH RAILWAY.—At a Half-yearly General Meeting of the proprietors, held at the London Tavern, Abchurch-lane, on Wednesday, the 12th February, 1845, the report of the directors having been

4. That William Shadbolt, Esq., be re-elected a director of this company.

5. That Henry Wheeler, Esq., be re-elected a director of this company.

6. That the best thanks of the meeting be given to the directors for their unremitting attention to the interests of the company.

CHELMSFORD AND BURY RAILWAY, BY BRAINTREE, BOCKING, HALSTEAD, SUDBURY, AND LAVENTHAM, with projected EXTENSIONS TO THETFORD AND MALDON.—Length, 39 miles.
Capital £750,000, in shares of £25 each.—Deposit £1 7s. 6d. per share.

W. C. Barnardiston, Esq., the Rye, Sudbury
The Rev. Edward Bull, Pentlow Rectory
J. Brewster, Esq., Little Maplestead Hall,
Essex
J. W. Cater, Esq., Lynton Hall, Essex, and
G. Waller-Poley, Esq., Becket Hall, Suffolk
W. D. King, Esq., Bank, Sudbury
The Rev. Thomas Ludbey, Cranham Rec-
tory, Essex
Onley Savill Onley, Esq., Stisted Hall, Essex
G. Waller-Poley, Esq., Becket Hall, Suffolk

(With power to add to their number).
ENGINEER—R. W. Thomson, Esq. C.E.
BANKERS.

Westwood, Gray's Inn-square.
LOCAL AGENTS.
Chelmsford—James Parker, Esq.
Braintree—Messrs. Cunningham, Veley, and Cunningham.

— but which possess, nevertheless, population, wealth, and traffic, amply sufficient to defray the charges of forming a direct railway communication through them, and to afford a good return for the capital required for the purpose.

(Commencing at Chelmsford (at the station of the Eastern Counties Railway), this line

The population of the hundreds which will be directly intersected by it amounts to 33,131, and that of numerous places to which it would be more available than any other railway, to 42,600, making the total population which may be reached, more or less, 75,731.

tiets for its agricultural produce, will not only have their own operations greatly facilitated and their revenues increased by its formation, but contribute considerably to the income of the railway. They would be feeders, but in no respects rivals to it. But, besides the above local traffic, the line would command a very considerable through traffic between London and all the

appears, that, assuming that it would be trebled by the facilities afforded by railway communication, which is less than what all railway experience would warrant, the total returns from the projected railway would amount to £105,405.

The line selected for the railway is the result of an engineering survey on which much

Deducting 40 per cent. from the gross returns for the expense of working the line, a liberal allowance for a line of this character, it would leave a net annual revenue of \$63,943, which would be equal to 8 per cent. on the invested capital.

Power will be reserved in the act to allow 4 per cent. interest on deposits until the com-

Gentlemen, Please allot me shares in the above Company; and I hereby undertake to accept such shares, and to pay the deposit thereon, and also to execute the Parliamentary contract and subscribers' agreement when required.

ke the present, when railways and railway projects engross almost universal attention, we think it would not be unseasonable to give our readers a brief outline of the number of canals between Europe and the East.

Dieppe.....	13,199	13,807	22,472
Amiens.....	3,199	5,631	9,323
Amiens.....	—	9,677	7,308

It will be seen that the increase in the ports of Boulogne, Ostend, and Amiens has been considerable, while that of Dieppe has been small.

increase in passengers has been nearly 75 per cent.; in each of those still in want of these facilities, travelling shows a decrease of 25 per cent. After such incontestible proofs of the enormous advantages deriving from rail-

that the entire capital sunk from the commencement is to be repaid, with interest, at the rate of 4 per cent. The tolls arising from the ferry were let on Tuesday, by Mr. Haineselin, for one year, for \$4701.—being nearly \$800 above the amount paid last year.

Transactions of Scientific Bodies.

MEETINGS IN THE WEEK.

SOCIETY.	PLACE OF MEETING.	DAY.	HOURL.
Royal Botanic	Regent-park	Saturday	4 P.M.
Geographical	2, Waterloo-place	Monday	8 P.M.
British Architects	16, Grosvenor-street	Monday	8 P.M.
Medical	Bolt-court, Fleet-street	Monday	8 P.M.
Medical and Chirurgical	53, Brompton-street	Tuesday	8 P.M.
Civil Engineers	25, Great George-street	Tuesday	8 P.M.
Zoological	111, Regent-square	Tuesday	8 P.M.
Society of Arts	Adelphi	Wednesday	8 P.M.
Geological	Somerset House	Wednesday	8 P.M.
Pharmaceutical	17, Bloomsbury-square	Wednesday	9 P.M.
Royal	Somerset House	Thursday	8 P.M.
Antiquaries	Somerset House	Thursday	8 P.M.
R. Society of Literature	St. Martin's-place	Thursday	8 P.M.
Medico-Botanical	35, Sackville-street	Thursday	8 P.M.
Royal Institution	Albemarle-street	Friday	8 P.M.
Philological	49, Pall-mall	Friday	8 P.M.
Mathematical	Crispin-street, Spitalfields	Saturday	8 P.M.

INSTITUTION OF CIVIL ENGINEERS.

Feb. 11.—The President (Sir John Rennie) in the chair.

The first paper read this evening was a description, by Mr. Thomas Hughes, Assoc. Inst. C.E., of the method employed for draining some banks of cuttings on the London and Croydon and London and Birmingham Railways, also a part of the retaining wall of the Euston incline plane. The method adopted was the introduction of Watson's drain pipes, which were made of the ironstone clay of Staffordshire; their surface is pierced with numerous apertures, small externally and enlarging inwardly, which form prevents their being clogged by the earth, and allows whatever enters to pass freely into the pipe. In their application on the London and Croydon Railway, a longitudinal trench, four feet deep, was dug on the crown of the bank, at a few feet from the edge, and other trenches, about thirty feet apart, descended from it to the open drain by the side of the permanent way. On the London and Birmingham Railway, the descending trenches were eighty feet apart, and varied from three feet to six feet in depth; the pipes were introduced into these trenches, and the clay which had been dug out was then laid over the pipes; from the longitudinal line of pipes upright pipes were occasionally introduced for the purposes of ventilation. The panels of the retaining wall were drained by boring holes through the brickwork at given distances with a powerful auger, worked by a machine, and then inserting cast-iron pipes of the same form as those of clay. This process proved so effectual, that the walls, which before showed evidence of water being lodged behind nearly the whole length, were now evidently drying fast, and the water oozed out from the pipes at all times, even during the severe drought of 1844.—The paper induced an animated discussion upon retaining walls, in which Mr. R. Stephenson gave an interesting account of his views at the time when he designed the walls of the Euston incline, the changes which subsequent experience had worked in his opinion, and the reasons which induced him to adopt the process of staying the walls with cast-iron beams, stretching from one side to the other.

The next paper read was a description of the Ouse Bridge, on the Hull and Selby Railway, by W. B. Bray, Grad. Inst. C.E.—The Act for this railway was obtained in 1836, and it forms, with the Leeds and Selby, which was opened two years previously, a direct communication between Leeds and Hull; they were both surveyed and executed from the designs of Messrs. Walker and Burgess. The river Ouse, at Selby, is 196 feet wide and fourteen feet deep at low water; the tide rises four feet at neap tides, and nine feet at spring tides. The bed of the river consists of silt, resting on a bed of quicksand, beneath which is a hard clay. The foundations of the abutments were formed of piles, driven into the clay, and on these longitudinal sleepers and transverse sills were tenoned, the intermediate spaces being filled with broken stone, grouted with thin mortar. On this platform brick abutments, with stone quoins, string courses, and copings were built; they were subsequently tied by wrought-iron rods to heavy stone piers. There were six piers placed in pairs, which were founded on piles driven into the clay, and tenoned to receive the cap sills, on which cast-iron frames were strongly bolted, the ends being furnished with cutwaters of cast-iron plates. The superstructure consists of six ribs of cast-iron, an inch and a half thick, resting on transverse girders, one being placed under each line of rails, and one under each handrail, the rails themselves being laid on longitudinal sleepers, twelve inches wide and six inches deep. In the Act there was a clause requiring that this bridge should have an opening arch, for the passage of steamers and vessels with fixed masts; this consists of two similar leaves, each keyed on to a cast-iron shaft, nine inches square, with turned journals, plunger blocks, and brasses. The total weight of ironwork is 590 tons, and the erection of the bridge was let to Mr. Briggs, of Ferry-on-Trent, and the British Iron Company. The communication was accompanied by a register of the tides at Selby during the year 1842, and was illustrated by a well-executed model, presented to the institution by Mr. James Walker.

Mr. J. R. Redman exhibited a portion of a fender pile which had been driven in the works of the New Terrace Pier, at Gravesend, in 1843, and in which the *teredo navalis*, or pipe worm, had made great inroads. It appeared, however, that the ravages of this insect were confined to a space of about three feet above the level of low water spring tide, and that, therefore, if wood work was well defended by copper sheathing or scupper nails at and below that point, no great injury would be received by piles in any situation.

The meeting was adjourned to Tuesday evening, the 18th instant, when the following paper will be read:—"Description of the Great Britain steamship, with an Account of the Trial Voyages," by T. R. Guppy, Assoc. Inst. C.E.

TALACRE COAL AND IRON COMPANY.

During the present week, the Court of Queen's Bench in Dublin has been occupied with the hearing of the notorious case, Howard v. Shaw, for which a new trial was granted last term, in consequence of Mr. Justice Crampton having refused to admit evidence for the defendant to prove the company a fraud.

Mr. WHITESIDE, in opening the pleadings for Howard, stated, that the case came before that Court under the following circumstances:—Levison, the payee of the bills in question, passed them to the plaintiff (whether for valuable consideration, the jury must decide); when they became due, Mr. Shaw had left Ireland, and a commission in bankruptcy was therefore issued against him. The debt was proved before the Commissioners, when the defendant went before the Lord Chancellor on a petition, that the bills were obtained fraudulently and without any consideration. On this, the Lord Chancellor directed issue to be joined in the Court of Queen's Bench, the plaintiff bringing his action, and the defendant pleading *non-est*.

Mr. FITZGERBON, on the part of Shaw, would prove to the satisfaction of every man, that his unfortunate client was made the dupe of as gross and criminal a fraud as ever was perpetrated, by which Mr. Shaw, among other unhappy victims, had already been plundered to the amount of 8000*l.* After designating the originators as a "gang of fraudulent conspirators," every man of whom ought to be indicted, he concluded by calling witnesses.

One of these, the agent of Sir E. Mostyn (from whom the alleged mines had been purchased at a mere trifle), in the course of his examination, stated, that when Levison and Baker commenced fixing machinery, as if any coal could be raised, he remonstrated with them upon the folly of such expense for the working of a mere shell, telling them plainly there was no coal there whatever. On this, they replied, that that mattered not; it was done for a purpose, about which witness knew nothing. He deposed also, that coals had been shipped to Dublin as Talacre coal, and advertised as such, whilst they came from the Bryn Colliery, nothing being ever raised from the former place.—Another witness stated, that Levison caused an old mine, previously exhausted, to be "chipped" up, so as to give it a fresh appearance. Round this Shaw was taken; and, though the pit was only a few yards long, he was walked round the pillars—describing a figure 8—till, having gone over nearly that number of miles, he could proceed no farther, and was informed he had not yet witnessed half the extent of the mine.

Only three witnesses had been examined up to the second day of the trial, and the case was likely to occupy the remainder of the week. It appeared to excite intense interest throughout the entire city, and the court was crowded to suffocation during each sitting.

DESTRUCTIVE FIRE AT THE HAWARDEN FOUNDRY AND IRON-WORKS.—On Thursday, the 6th inst., a very disastrous fire broke out on Mr. J. Rigby's establishment at Hawarden, by which considerable property has been destroyed. Smoke was first observed issuing from the second floor of the pattern warehouse, which is in all three stories high. Unfortunately, no engines being on the spot, much time was lost before those from Chester had arrived, by which time the roof and floors of that department had fallen in, and every effort to save any portion of the patterns proved unsuccessful. Fortunately, the fire was confined to this one building—for the foundry, being separated from the pattern warehouse by a stable and row of cottages, the former was speedily torn down, and the cottages well played on by the engines, and thus further destruction stayed. The only account that can be given of the origin of the fire is, that one of the boys having snuffed a candle with his fingers, whilst looking for a pattern in the evening, thoughtlessly dropped the lighted wick, and occasioned the accident. The injury done the works is estimated at 3500*l.*, the whole of which is covered by insurance in the Alliance Office. We are authorised to state, that the fire will not impede the execution of any contract in which the concern is engaged.

ARTIFICIAL RAIN.—We are informed, by an American correspondent, that rain has actually been produced, in two separate instances, by Prof. Epsy, by setting small prairies on fire, and thus "causing clouds to form, and rain to fall," on an otherwise clear day.

IRON STEAM-VESSELS.—We understand the proprietors of the Ebbw Vale Iron-Works have determined to put on a line of steam-ships between Newport and Liverpool; the first vessel, the *Iron Prince*, is now advancing under the hands of numerous artificers. It is to be hoped that this great boon to the port will experience the best support that the inhabitants of Newport can afford to it.—*Monmouthshire Mercury.*

PILBROW'S IMPROVEMENTS IN ATMOSPHERIC PROPULSION.

Having had our attention repeatedly called to this invention, and the public interest being deeply engaged in all inventions having for their object improvement in railway travelling, we are induced to afford space for a popular sketch of the various particulars of this important discovery.

A pipe or tube similar to that hitherto devised for the propulsion of carriages on the atmospheric principle is placed between the rails of a railway, but lying in a hollow or channel dug in the earth, and fastened to the sleepers. At intervals along this tube there are inserted spindles, with rollers or pinions, or small cogged or indented wheels, made or cast in one solid piece of iron, the upper portion having teeth or cogs around it, and the lower the same, so that the cogs of either may correspond exactly. The portion between these cog-wheels forms a spindle, or axis of connection between them, projecting top and bottom, and forming centres or pivots to work in bearings. The tube has projections made upon it at the places proposed to place these pinions, and has also an opening in it to allow the lower portion of the pinion to enter and project a short distance into the hollow of the tube, the upper and lower ends of the spindle, or the pivots of the pinion working in holes made for that purpose in this projecting-box, which has a support carried up; but that part of the spindle between the toothed portion does not touch, but passes through a hole made in the tube and box, which is larger than the spindle, but there is a flat or conical part, which is allowed to touch; these pinions are, therefore, free to turn, when acted upon in any proper manner, and are partly inside and partly outside the tube. It is proposed, then, to make a piston thus:—Upon a strong iron bar, having shoulders and screws at each end, several discs of iron, wood, and leather, are placed. A disc of iron, having a hole through the centre to fit the smaller part of the bar, goes home to the shoulder; next to this disc is placed one of leather of larger diameter; again, to this is placed another disc of iron, dish or concave on the inner side, to correspond with the convexity of the other iron disc. Before this may be placed a conical block of wood, and when all screwed up together by the nut, will form the one part of the piston, the leather expanding against the side of the tube, and rendering it air-tight. At the other end of the bar, the same arrangement is repeated, making a double piston, for greater security in passing the pinions, and steadiness of travelling. To the piston thus constructed is attached the rack. To form this, a rod of iron is taken of suitable strength, rather longer than the space between two pairs of the pinions on the main, so that it may be between or in contact with one pair before leaving the other. This rod having a strong eye at one end, and bent down, and the eye placed upon the end of the bar, and fastened up firmly to the wooden cone by the nut, the principal part of the rod itself will be in the square channel upon the main, passing up through the slit or opening. Upon this rod is placed a number of pieces of iron, wood, and caoutchouc, each having a hole through it the size of the steel rod, which, when placed regularly against each other, will form a double line of cogs, of size and shape matching with the pinion. A sufficient number of these being placed upon the rod to make the required length, they are all secured on, and kept up tightly together by a nut secured to the extreme end of the rod, which then forms the piston rack, and this being very nearly the size of the square channel on the main, will pass along when dragged by the piston, and come into contact, and gear with the lower pinions as it passes between them. It is upon this very ingenious principle, then, that the piston and piston rack are composed; the former is fitted air-tight into the tube, having attached to it the piston rack, which is so placed, as that when the piston is allowed to pass along the tube, the rack will act upon, and be in gear, with that part of the pinion, and if a vacuum be formed by pumping out or exhausting the air from the front of the piston in the usual manner; the pressure of the atmosphere urges this piston onwards towards the vacuum, and, of course, the rack with it, and that being in gear with the pinions, cannot advance without turning them as it passed, and, therefore, that portion of the spindle and pinion which is outside the tube. To the under part of a railway carriage there is attached a rack similar to the piston rack (with the exception, of course, of the piston), which is called the carriage rack, the front end being tapered to render easy its entrance between the pinions; this rack is made to correspond with the internal or piston rack, so as to be in gear with the opposite pinions at one and the same time—therefore, by placing the rack in such a manner as to place the pinions in gear with the cogs on each side, both racks will move together, and in the same direction; if the vacuum, then, has such an effect upon the piston as to cause it to advance, both racks must advance also simultaneously, and in the same relative position, one pinion being acted on in advance before the other has ceased, and, therefore, as long as the power continues, and the piston advances, the carriage will do the same to the end of the tube, arriving at the same moment with the piston, as neither can, by possibility, arrive before the other—thus would the carriage and all attached to it be propelled. This, then, is a short description of this beautifully simple, but important, discovery; as yet we refrain from giving any decided opinion on its merits or alleged objections, which we feel the less necessary, a company being already in formation to test the system fully and fairly over a line of ten miles near the metropolis, to be laid down under the immediate superintendence of the patentee; this much, however, we will admit that we can see no defect whatever in the principle, and this being generally admitted, we are glad to find the opportunity afforded of testing its merits, and modifying any defects which may then become apparent—thus removing any difficulty which may be found in practical working.

PROXY VOTING IN PUBLIC COMPANIES.—The right of voting by proxy in railway, mining, and other public companies, although at all times legal, has, until very recently, been subject to a heavy pecuniary charge, to which the generality of shareholders were unwilling to submit, unless where the exercise of the vote was called for upon strong grounds. Under the old law, no proprietor could vote as proxy for an absent proprietor without the production of an authority, such instrument bearing a 30*s.* stamp. This was found to be a practical grievance, inasmuch as it was not always convenient for shareholders residing in distant parts of the kingdom to attend in person the meetings of companies in which they held shares. By the Act of the 7th of Victoria, cap. 21, the stamp duty has been reduced to 2*s.* 6*d.*, but the statute contains some stringent provisions, which will, it is conceived, have a salutary effect. The 6th section provides, that any such instrument shall authorise the proxy to vote upon any matter at any one meeting of the proprietors or shareholders of the company, the time of holding such meeting being specified in such instrument, or at any adjournment of such meeting, the instrument being no further available. In order to prevent evasion of the law, the seventh section prohibits the Commissioners of Stamps from stamping any proxy paper after the same has been signed; and if any person shall sign any proxy paper not duly stamped, or shall vote or act as proxy under authority of an instrument not duly stamped, the party becomes subject to 50*l.* penalty, and every vote so given becomes absolutely null and void.

NORTHUMBERLAND RAILWAY.—We perceive that the committee of direction have determined to follow the example of other undaunted companies, and prosecute their claims before Parliament, despite the unfavourable decision of the Board of Trade. At the same time, an offer has been made (in imitation of that proposed by the North Kent line) to purchase, at the rate of 2*l.* 10*s.* per share (the original deposit) the shares of those proprietors who may be unwilling to incur the risk of additional expense. This, on the face of it, is an earnest of bona fide and generous dealing—the more welcome now, when so many schemes are abroad, little better, it is to be feared, than gambling speculations; and it also proves that the directors themselves have every prospect of ultimate success, founded on good and substantial reasons. We have no doubt but that the merits of the case will be fully entered into, and that justice done which the interests of the company and the community demand.

EXTRAORDINARY SPEED OF A STEAMER.—The *Swift* steamer, although of but 90-horse power, running between Bristol and Newport, is said to steam fifteen statute miles per hour, and she has been known to exceed that speed by nearly a mile. This very unusual rate of going, however, of so small a steamer may be accounted for, in a great measure (and it is but justice to mention it), by her having the benefit of Mr. Smart's convex propellers, which are now being much adopted, particularly at Bristol—a place greatly spoken of, and held in high estimation for turning out steamers of first-rate capability; she was built, and her engines made, by the much experienced firm of George Lumell and Co., of Bristol.

THE TRUCK SYSTEM.—(From a Correspondent.)—We regret having to record another instance of this nefarious practice being still unlawfully persevered in.—D. Nichol, a contractor on the Manchester, Bury, and Rossendale Railway, at Ringley (near Oldham), was summoned for paying Henry Stephens, a quarryman, otherwise than in current coin. He had been in Nichol's service twenty-one days, and had received in provisions, by tickets, from a shop, 1*l.* 18*s.*, and 6*s.* and 18*s.* in money.—The magistrates considered it somewhat unfair to claim money already paid in tickets, but, it not being a legal payment, the award must go against the contractor.

THE IRON TRADE—THE HOT-BLAST.

A number of gentlemen, wishing to convey to Mr. Neilson, the inventor of this valuable process, a testimonial of their admiration of his genius as an inventor, and also their personal esteem, have given an entertainment to him at Glasgow.

On the occasion of the *Chateaux* (the Lord Provost) proposing Mr. Neilson's health, he observed, that in his youth that gentleman was distinguished by great ingenuity, and by the extent of his inventive resources, having as early as 1820 turned his attention to the important subject of economising fuel in the smelting of iron; and in this point he was frequently consulted by the principal ironmasters of Scotland. There was nothing selfish in the investigation which he followed out; he desired every desire to give a knowledge of his views to the world; and in 1825 he published a very ingenious paper on the smelting of iron ore in the *Mechanics Magazine*, in which he showed a great deal of research into the early history of ironmaking, and specially discussed the question as to the variations in the quantities of iron produced in the furnaces in summer and winter. In the years 1826-7, Mr. Neilson carried on many expensive and laborious experiments, and in 1828 was rewarded with success, having that year secured his patent for the hot-blast. This was, perhaps, one of the most successful patents that ever issued from the patent office. It was well known that there was scarcely one in a thousand the integrity of which could be maintained; but this was one so unique, so excellent and perfect of its kind, that it had been maintained, even in the face of the most powerful opposition ever, perhaps, witnessed for the destruction of any patent. The effect of Mr. Neilson's invention had been to change the whole face of the iron trade, and to place it in a position which it never before occupied in Scotland. In 1828, when the patent was obtained, the iron trade in Scotland did not exceed 60,000 tons annually, while at present it amounted to about 400,000 tons, and was the means of giving employment to thousands and tens of thousands of our operative population. Had it not been for the invention of Mr. Neilson, our iron manufacturers could never have held up their heads against the old established manufactures in England and Wales—in fact, our coal was not suited for competing with the Welsh; and the black-band would have been lying like useless clay in the earth, had it not been for the invention of the hot-blast.

At a subsequent period of the evening, Mr. Neilson's invention was very honourably spoken of by Mr. Wilson, a gentleman of considerable talent and experience in the vicinity of Glasgow, who, after comparing the respective exertions of Watt and Mr. Neilson, continued, by observing that the object and result of Watt's invention was (by condensing in a separate vessel) the saving of fuel; and the remuneration he asked and obtained was a per centage of this saving. In like manner, the object and result of Neilson's invention was the saving of fuel, and that principally in the manufacture of iron. It might at first sight be supposed that the coal proprietor would say—no thanks to these gentlemen for inventing that which diminishes the use of my property—coal; but look to the effect of these inventions. Watt's improvement on the steam-engine, together with our abundant resources of coal, had enabled the country so to extend its manufactures of cotton, &c., as almost to supply the whole world, and by this great increase of manufacture, was the immense increase of the consumption of coal and iron. Neilson's invention had increased the total consumption of coal in Scotland to an enormous extent, in the making of iron. Before the invention of hot-blast, the quantity of coal used in the manufacture of iron in Scotland would be about 300,000 tons a year, and now above one million tons were used, these million of tons producing eight times the quantity of iron the 300,000 tons did. Who had benefited so much by Neilson's invention as the mineral proprietors? Their revenues must have increased in proportion to the increase of the manufacture of minerals into iron, and as the manufacture of iron had hitherto been principally situated in Lanarkshire, the proprietors in that county had derived the benefit.

Mr. NEILSON, in acknowledging the compliment, alluded in satisfactory terms to the state of the iron trade, and observed, in reference to its prosperity in Scotland, that it had of late years increased in that country to a great extent. At the commencement of 1828 it amounted to about 45,000 tons annually, and now it was nearly 400,000 tons. Now, if the iron trade had increased without the hot-blast at the same rate as it had with it, what would have been the amount of fuel required? About two million tons more of coal would, in that case, have been necessary. If the same quantity of iron as was now made was blown with the cold-blast, it would require two millions of tons more of coal than was at present used with the hot-blast. If the quantity of iron that was required in the country was to be made by the cold-blast instead of the hot, it would have been found that the ironstone, and the coal necessary to work it, would have been out of all proportion to each other. The demand for fuel for the steam-boats was immense, and this, with other causes, would have greatly reduced that article. The quantity now made annually was upwards of 40,000 tons—whereas, before he began the trade, bar-iron had to be imported into Scotland. This branch of the iron trade was as yet only in its infancy. The number of iron steamers, however, that were now made—upwards of twenty-two having last year been sent out of the Clyde, and about 9000 or 10,000 tons being required for this line alone—showed that it was a trade which would yet turn out to be one of vast importance. He had no doubt that, if the proprietors and tenants of minerals went hand in hand, and if the tenants were not too hastily dealt with, as in some instances they were, this trade would go on increasing to an enormous extent, for there was not a sufficiency of malleable iron made in this country to supply the market.

This assertion, derived from authority so high and incontestible, is deserving of the greatest attention; it bears out fully all the anticipations which we have lately so confidently avowed respecting the prosperity of the iron trade, especially furthered by the general adoption of iron ship-building; and we are happy and proud to find our views so positively confirmed in every respect—both cause and consequence—by so high and indisputable an authority.

RAISING SUNKEN VESSELS.—We have before us the prospectus of a company (the Universal Salvage Company) which, unlike many speculations of the day, bears upon the face of it the stamp of utility and importance—the object of which is to bring before the public the invention of Mr. Edward Austin, who has for many years devoted his unceasing attention to the discovery of a method for raising sunken or wrecked vessels. The difficulty of such undertaking is at once apparent; thousands have tried it—some have partially succeeded—more completely failed; a few, indeed, wiser or more fortunate than their brethren, brought their enterprise to a satisfactory and profitable result, but none have matured any plan, or propounded one tangible and undisputed principle, for obtaining this desirable, and, indeed, most important, object—the salvage of sunken property. The method suggested by Mr. Austin is at once simple, and in accordance with the laws of natural philosophy, subject to none of the objections, which have shackled the diving-bell and other similar inventions so inextricably, as to confine their use to limited and specific purposes, it is possessed of the adapted principles of science, and, after a critical examination, we can see no reason why it should not succeed, everything appears so perfect, and, in fact, so self-evident. The mode by which the object is to be attained is the sinking of collapsed or exhausted bodies attached to chains, which are to encircle the sunken vessels, these air-tight cases being filled. If such results can be accomplished, there is a large field to the parties whose property they recover, and to the company, who take the duties of salvors. Mr. Austin is very sanguine of success, and his confidence is based on experiments made before nautical and scientific men of undoubted talent, all of whom have pronounced decidedly favourable opinions. In the year 1840, many ineffectual attempts were made by divers and others to raise the brig *Mary Ann*, heavily laden with iron pipes and a general cargo, sunk off Southend in nine fathoms water. After six weeks of great perseverance and labour, attended with considerable expense, the parties abandoned the enterprise. Mr. Edward Austin then commenced his operations on the above vessel, and in two hours and twenty minutes he lung her; within two hours after, the vessel was raised to the surface of the water—proving, beyond doubt, the power and utility of his method of sinking and raising sunken vessels.

OPENING OF THE MARYPORT AND CARLISLE RAILWAY.—On Monday last, this line was opened between the respective towns of Carlisle, Aspatria, Maryport, and Wigton. It was perfectly successful, and must be the means of attracting much traffic, and affording other important advantages to the various neighbouring localities, inasmuch as it completes the communication between the east and west seas, and affords to the counties of Cumberland and Northumberland an excellent medium of intercourse and traffic. From Maryport to Carlisle is a distance of twenty-eight miles. It passes through a country rich in coal, lime, and freestone, and will give accommodation to a large agricultural and manufacturing population. The line was commenced in May, 1837; there are no tunnels, and no very deep cuttings or high embankments on the line; the heaviest cutting is at Aspatria, where between 300,000 and 400,000 cubic yards of heavy clay and wet sand had to be removed, and was found to be a work of great labour and difficulty. The bridges on the line are numerous, but not difficult, only two rivers, the Caldén and the Waver, being to cross once each, the total number of viaducts and under-bridges being 77. Among these are two "skew," or oblique bridges, executed with great skill by Messrs. Blackstone and McKay. The steepest gradient on the line is 1 in 203, and varying from this to 1 in 1900. The deepest cutting is thirty-six feet, and the highest embankment is thirty-seven feet. The cost per mile will be about 10,000*l.*, exclusive of engines and carriages. By the opening, four or five new collieries will be brought into operation, the principal part of the produce of which will be shipped at Maryport for the Dublin and Belfast markets, and part will be sent to Carlisle, where they will compete with the coals from the pits of the Earl of Carlisle, near Brampton. The coals are of excellent quality, and a large demand for them is calculated upon. The trains will not run on Sundays; but this accommodation will be obtained as soon as the line is made use of by the Post Office. With respect to the paying qualities of the line the directors are sanguine. Maryport is a thriving sea-port with a good harbour, capable of great improvement and extension; and the inhabitants being spirited and enterprising, it bids fair to rise to considerable importance.

BRISTOL AND EXETER RAILWAY—Notice is hereby

The chair will be taken at One o'clock precisely. **FRED. RICKETTS, Chairman.**
The retiring directors may be re-elected.
The Transfer Books will be closed on Monday, the 17th of February, and not re-opened

until after the said general meeting; on the 27th.
By order of the board of directors,
Office, 30, Broad-street, Bristol, Feb. 1, 1845. J. B. BADHAM, Secretary.

NORTH WALES MINERAL RAILWAY.—The HALF-YEARLY ORDINARY MEETING of this company will be HELD at the company's office, 62, Moorgate-street, London, on Friday, the 29th of February, at One o'clock precisely. By order, GEORGE KING, Secretary.

62, Moorgate-street, Feb. 11, 1845.

LONDON AND GREENWICH RAILWAY.—At a Half-yearly General Meeting of the proprietors, held at the London Tavern, Runcorn-street, on Wednesday, the 27th February, 1845, the report of the directors having been read, the following RESOLUTIONS were presented and carried:—

1. That the report and accounts now read be received, approved, and adopted, with the exception of the proposed gratuity to Mr. Watkins (the transfer clerk), which the directors be requested to raise from £125 to £200.
2. That a gratuity of £300 be given to Mr. George Walter.

3. That an annuity of \$15 per annum be granted to John Nash from the funds of the company.

4. That William Shadbolt, Esq., be re-elected a director of this company.

5. That Henry Wheeler, Esq., be re-elected a director of this company.

6. That the best thanks of the meeting be given to the directors for their unremitting attention to the interests of the company.

7. That the best thanks of the proprietors be given to the auditors for their attention to the accounts of the company.

8. Moved and carried unanimously—That the best thanks of the meeting be given to Wm. Shadbolt, Esq., for his urbane conduct in the chair.

(Signed) H. ADRON, Secretary and Accountant.

CHELMSFORD AND BURY RAILWAY, BY BRAINTREE, BOCKING, HALSTEAD, SUDBURY, and LAVENHAM, with projected EXTENSIONS to THETFORD and WILLOW—Length, 39 miles.

Capital £200,000, in shares of £20 each. £21 7s 6d. per share.

Registered provisionally, pursuant to Act 7 and 8 Geo. 4. c. 119.

PROVISIONAL COMMITTEE.	
Sir Hyde Parker, Bt. Melford Hall, Suffolk	J. F. S. Gooday, Esq. Sudbury
Sir John Page Wood, Bart. Glasenwood House, Essex	R. E. Greenwood, Esq. Bank, Halstead
Col. T. F. Adams, Charlton Lodge, Sudbury	Josiah Heale, Esq. Gray's Inn
N. C. Barnardiston, Esq. the Ryces, Sudbury	John Hubbard, Esq. Sibth Heddingham
The Rev. Edward Bull, Pentworth Rectory	D. D. C. Esq. Bank, Sudbury
J. Brewster, Esq. Little Maplesford Hall, Essex	The Rev. Thomas Lubyck, Crumham Rectory, Essex
J. W. Coker, Esq. Lyeon Hall, Essex, and Liverpool	Orville Savill Onley, Esq. Sibth Hall, Essex
S. Courtauld, Esq. Fyston House, Bocking	G. Weller Foley, Esq. Boxed Hall, Suffolk
John Chauntler, Esq. Friday-street, London	J. Weller Foley, Esq. Boxed Hall, Suffolk
John Edmunds, Esq. Sudbury and London	Joseph Sewell, Esq. Halstead
	Robert F. Steadman, Esq. Sudbury
	John Taylor, Esq. Sibth Heddingham, Essex

Messrs. *James, & Co.*, *Leahurst*,
 The Rev. H. B. Faulkner, *Westgate House*,
Melford
 (With power to add to their number).
ENGINEERS—R. W. Thomson, Esq. C.E.
BANKERS.
London—Brown, Janson, and Co. Abchurch-lane.
Chelmsford and Braintree—Messrs. Sparrow and Co.
Hatfield—London and County Bank.
Sudbury—Messrs. Alexander and Co.
Bury—Messrs. Oakes, Berran, and Co.
Liverpool—Bank of Liverpool.
SOLICITORS—Messrs. White and Berrett, *Lincoln's Inn-fields*; Messrs. Chandler and
 Westwood, *Gray's Inn-square*.
LOCAL AGENTS.
Chelmsford—James Parker, Esq.
Braintree—Messrs. Cunningham, Vye, and Cunningham.
Hatfield—D. Sorrell, Esq., and G. F. Arden, Esq.
Sudbury—Messrs. Steadman.
Long Melford—Richard Alnack, Esq.

The line of railway now submitted to the public rests its claims for support on the
 strong general ground of its passing through important districts in Essex and Suffolk,
 whose interests have been almost entirely neglected in the laying out of the different
 railways hitherto executed or projected for the benefit of the eastern counties of England
 —but which possess, nevertheless, population, wealth, and traffic, amply sufficient to de-
 fray the charges of forming a direct railway communication through them, and to afford
 a good return for the capital required for the purpose.

Commencing at Chelmsford (at the station of the Eastern Counties Railway), this line

will pass close by Braintree, Hocking, Halstead, Sudbury, and Lavenham, to Bury, running throughout its whole extent of thirty-nine miles nearly continuous with the ancient and most frequented highway from the metropolis into the heart of Suffolk. It is the direct line for the transit for two important markets and assize towns, and for its principal intermediate stations places of considerable trade, and for the manufacturing towns of the county. The towns of Bury and Sudbury are the two largest in the county of Suffolk next to Ipswich; and Halstead and Braintree are the two largest in Essex next to Chelmsford and Colchester.

The population of the hundreds which will be directly intersected by its amount to 113,391, and that of numerous places to which it will be more available than any other railway to 43,500, making the total population which may be reckoned upon as necessarily tributary from local vicinage to this line not less than 176,631.

Between the metropolis and all the places which have been named, as well as between these places themselves, there is a large existing traffic, to which the facilities of the railway would add, and which would be a constant and increasing source of business.

The Chelmer and Stedman Navigations, through which the districts traversed by this line now receive their supplies of coal, lime, timber, iron, &c., and which are also the principal outlets for its agricultural produce, will not only have their own operations greatly facilitated and their revenues increased by its formation, but contribute considerably to the income of the railway. They would be feeders, but in no respects rivals to it. But, besides the above local traffic, the line would command a very considerable through traffic between London and all the northern parts of Norfolk; for time immemorial more than one-third of all the coach traffic between London and Norwich has passed over the line of road with which this railway would be contemporaneous.

An extension of the line to Thetford, and also a branch from Brintree to Maidon by the way of Witham, have been surveyed, and will form part of the scheme if required by the Board of Trade.

From calculations which have been very carefully made of the existing traffic alone, it appears, that, assuming that it would be trebled by the facilities afforded by railway communication, which is less than what all railway experience would warrant, the total

The line selected for the railway is the result of an engineering survey on which much time and pains have been expended, and will, it is confidently believed, be found to be one of the very best of which the nature of the country admits, but one admirably adapted to meet the requirements of the district. The line is not only made and cheaply worked, the gradients are easy and well balanced, the level of the line is low, and the average earthwork on railways, and there will be no constructions of much difficulty or magnitude. The land required for the line will be mostly farm land of moderate value, and in no place will it pass through any parks or ornamental grounds.

Deducting 40 per cent. from the gross returns for the expense of working the line, a net allowance for a line of this character, it would leave a net annual revenue of £63,343, which would be equal to 8 per cent. on the invested capital.

Power will be reserved in the act to allow 4 per cent. interest on deposits until the completion of the line.

Application for shares, in the annexed form, may be made by all the solicitors or local agents above-named, or to L. M. Simon, Esq., broker, Warndon-court, Threagrove.

on-street, London; or to Thomas Forsyth, Esq., broker, Liverpool.

FORM OF APPLICATION FOR SHARES.

To the Provisional Committee of the Chelmsford and Bury Railway Company.

Gentlemen,—Please allot me _____ shares in the above Company; and I hereby undertake to accept such shares, and to pay the deposit thereon, and also to execute the Parliamentary contract and subscribers' agreement when required.

I am, Gentlemen, your obedient servant,

Dated this _____ day of _____, 1845. _____

Name _____
Address _____

COMMUNICATION BETWEEN ENGLAND AND THE CONTINENT.—At a time like the present, when railways and railway projects engross almost universal attention, we think it would not be unseasonable to give our readers a brief outline of the number of travellers between England and the continental ports for the last three years. The following

	1842.	1843.	1844.
Boulogne.....	48,254	56,868	73,790
Havre.....	23,471	21,380	19,479
Calais.....	20,738	19,079	18,563
Ostend.....	13,780	13,857	22,479
Dieppe.....	3,199	5,631	8,338
Amiens.....		0,627	

It will be seen that the increase in the ports of Boulogne, Ostend, and Dieppe, has been considerable, while the communication with Havre, Calais, and Amiens, has materially declined. The reason is manifest; to the former every facility has been afforded by the construction of railroads, both in England, and the continent; thus, about 180 miles of railroad

The terms upon which the proprietors of the Torpoint Steam Ferry have agreed with the Corporation are as follows:—

that the entire capital sunk from the commencement is to be repaid, with interest, at the rate of 4 per cent. The tolls arising from the ferry were let on Tuesday, by Mr. Hainselin, for one year, for \$4704.—being nearly 800 above the amount paid last year.

COLLEGE OF CHEMISTRY.—At a MEETING of the Provisional Council of the College of Chemistry, held on Tuesday, the 14th of January inst. (the Marquis of Downshire in the chair), a COMMITTEE was appointed to ORGANISE the INSTITUTION and prepare its Laboratory, and for other purposes connected therewith. —Prospectuses and full particulars may be obtained at the office, No. 7, St. Martin's-place, Trafalgar-square, London.

Life subscriptions, £10 10s.—annual, £1 1s.—A list of subscriptions will shortly be published.

January 18, 1845.

JOHN GARDNER, M.D., Provisional Secretary.

TO THE PROPRIETORS OF MINES AND METALLURGY.—A PAPER, ON THE CONNECTION OF CHEMISTRY WITH MINING AND METALLURGY—presenting points of the highest interest to the proprietors of mines and metallurgy, is just published, by THE COLLEGE OF CHEMISTRY, and will be transmitted by post, on application to the secretary, enclosing a postage stamp. Office of the College, 7, St. Martin's-place, Trafalgar-square, London.

NEW JOURNAL OF THE GEOLOGICAL SOCIETY.
This day is published, 8vo., 4s., illustrated with wood-cuts, plates, and maps, No. 1. (to be continued quarterly) of
THE QUARTERLY JOURNAL OF THE GEOLOGICAL SOCIETY.

EDITED BY THE VICE-SECRETARY OF THE GEOLOGICAL SOCIETY.
London: Longman, Brown, Green, and Longmans.

THE MINERS' WIDOW AND ORPHANS' FUND.—At a MEETING of PARTIES INTERESTED IN MINES IN CORNWALL, held at the Pack-Horse Inn, St. Blazey, on Tuesday, the 11th February, 1845, NICHOLAS KENDALL, Esq., in the chair.

It was moved by J. Rashleigh, Esq., seconded by Captain P. Clymo, sen.—That a representation having been made by Mr. English of the objects of the Miners' Widow and Orphans' Club Fund, whereby relief would be afforded to the distressed from private benevolence, and a discussion having ensued thereon, it was unanimously resolved—That such fund is, in the opinion of the meeting, highly deserving the support of the best, adventurer, merchant, and the working miner; and that it is desirable a committee should be formed, to acquire statistical information, and to promote the objects of this meeting.

It was thereupon moved by Mr. H. English, and seconded by Mr. W. E. Geach—That the following gentlemen be requested to act on the committee:—
J. T. Treffry, Esq., Place.
N. Kendall, Esq., Place.
Jonathan Rashleigh, Esq., Menahilly.
Capt. Davis, R.M., St. Blazey.
William West, Esq., Tredenham House.
Capt. John Puckey, Fowey Consols.
(With power to add to their number.)

And that Mr. Hodge, of Fowey Consols, be requested to take upon himself the office of honorary secretary.

Moved by Jonathan Rashleigh, Esq., and seconded by Capt. Davis, R.M.—That the cordial thanks of the meeting be given to Mr. English, for the efforts he has made in promoting the measure submitted to the meeting.

N. KENDALL, Chairman.
A vote of thanks to the chairman was proposed by Capt. Davis, R.M., and seconded by W. West, Esq., C.E., for the urbanity displayed by that gentleman in the chair, and the kindness evinced by him in support of the miner—which having been passed, the meeting dissolved.

VICTORIA PARK CEMETERY COMPANY.
Registered for Incorporation, pursuant to 7 and 8 Vic., c. 110.
Capital £20,000, in 2000 shares, of £10 each.—Deposit 10s. per cent.

DIRECTORS.
George Offer, Esq.,
Joseph James Foot, Esq.,
James Collier, Esq.,
Charles Salisbury, Esq.,
Frederick James Catling, Esq.,
Robertson, Esq.

The company is established to afford the means of sepulture to the population of the metropolis and the eastern parts adjacent thereto, having for its object the securing an ultimate and protected resting-place for the dead, and a preventive against infection to the living—the necessity of promoting the health of towns, by prohibiting interments within their walls, is too universally admitted, to need comment.

Applications for shares, &c., to be made (post paid) to John Humphreys, Esq., solicitor and registrar, 6, Spital-square.

PLYMOUTH, DEVONPORT, AND STONEHOUSE CEMETERY COMPANY.
TO BE INCORPORATED BY ACT OF PARLIAMENT.
Registered under 7 and 8 Vic., c. 110.
Capital £15,000, to be raised in 600 shares, of £25 each.

PROVISIONAL COMMITTEE.
(With power to add to their number.)
Rev. John Hatchard,
Dr. Yonge,
Mr. France,
Mr. John Holman,
—Wyatt,
Alfred Hingston,
John Aiger,
J. Mills Carkeet,
Mr. John Cloutier,
Samuel Derry,
J. N. Bennett,
Thomas Fox,
William H. Hawker,
Robert Morris,
William Jos. Square,
Henry Woolcombe,
Mr. John Forster.

J. ELLIOT SQUARE, Honorary Secretary.

PROSPECTUS.
The great advantages to arise to the public by the laying out of burial grounds at a short distance from populous towns, rather than in their centre (as now very generally prevails), have been fully shown by the discussion consequent on the introduction into the House of Commons, in August, 1841, by Messrs. Mackinnon, Cowper, and Beckett, of a Bill "for the Improvement of Health in Towns, by Removing the Interment of the Dead from their Precincts." In consequence of the introduction of this bill, a commission was appointed to examine into the state of burial grounds; but, as no step has been taken in consequence, it is useless longer to delay an application to Parliament, in the hope that the expense of a private Act may be avoided by the introduction of a general Government measure.

The crowded state of the church-yards and dissenting burial places in those towns points out the absolute necessity for a cemetery in the neighbourhood—while the health of the inhabitants must suffer by continued interments in the midst of our dense population. It is a fact which comes within the knowledge of some of the provisional committee, that one of the fatal gales in Plymouth is so crowded, that the sexton, after having worked for two hours in order to discover a place for a single corpse, has been unable to find one where it could be deposited, without interfering with recently constructed graves; and it is notorious that more than the bones of the departed are at times exposed in making fresh openings. These facts would alone be sufficient to induce the more public-spirited of the inhabitants of the three towns to lay out a General Cemetery, even were it attended with loss; but, when it is known that in other parts of England where cemeteries have been constructed pecuniary advantages have resulted, it is confidently hoped that the present undertaking will meet with general support.

The proposed cemetery is designed as a place of sepulture for all denominations—a part to be consecrated for the interment of members of the Established Church, and the remainder to be open to Dissenters of all persuasions, in which surviving friends may bury their dead with whatever religious rites and ceremonies their consciences may dictate, and erect monuments to their memory. The grounds to be laid out in a becomingly ornamental manner, and rendered secure from intrusion. Land for vaults or graves to be sold in perpetuity. A plan of the ground is so arranged, that every monument having names of owners, as well as register of the age, death, former place of residence, and description of every individual interred, to be kept, and open for public inspection; and it is intended that the Acts of Parliament for the incorporation of the company shall contain a clause to make such entry legal evidence.

It is proposed that the affairs of the company be managed by trustees, under a Deed of Settlement, until it is incorporated. The capital to be £15,000, in shares of £25 each; a deposit of £5 per share to be paid on the subscription of shares.

As soon as 400 shares are subscribed for, and the deposits paid thereon, the company to be considered as formed, and the shares appropriated by the provisional committee, who shall thereupon convene a meeting of the shareholders, for the choice of a competent number of directors and other officers. Subscribers may, at such first meeting, vote either personally or by proxy, through the medium of some duly qualified shareholder. Each share to entitle the holder to one vote.

Applications for shares to be addressed, in the following form, under cover, to WOOLCOMBE, SQUARE, STEPHENS, and PRANCE, Solicitors, Plymouth.

To the Provisional Committee of the Plymouth, Devonport, and Stonehouse Cemetery Company, GENTLEMEN.—I request to become a subscriber for shares in this undertaking, and agree to take so many of such shares as shall be allotted to me, and, on receiving notice of such allotment, to pay the deposit of £5 per share in respect thereof, or of so many of them as shall be granted to me, and to execute the company's Deed of Settlement whenever called on so to do. I am, Gentlemen, your obedient servant,
The Christian Name and Surname, with the date and address, to be signed by the applicant.

DIRECT NORTHERN RAILWAY COMPANY.—At a numerous and influential Meeting of the shareholders in the Direct Northern Railway Company, held at the offices of the company, London, on February 14, 1845, pursuant to public advertisement, to take into consideration and discuss the propriety of enlarging the powers of the committee in respect of the necessary expenditure connected with the proceedings in Parliament, and to authorize the appropriation of funds already paid up for that purpose.

It was moved by James Matheson, Esq., M.P., seconded by John Chapman, Esq., and carried unanimously.

That it be a special direction and instruction to the committee of management that the limitation contained in the 9th clause of the shareholders' agreement of the expenditure to not more than 10s. per share for the purposes therein mentioned, in the event of an Act of Parliament not being obtained for the undertaking, except by the special direction or instruction of some meeting of the shareholders to be held as in the said agreement is mentioned, shall be removed.

That it shall be a special direction and instruction to the committee of management, and they are hereby authorized, to appropriate the funds already paid up for the purpose of defraying the expenses already incurred, or which may be hereafter incurred, in the proceedings preparatory to, or consequent upon, the application to Parliament for such an Act.

It was further moved by Lewis Crombie, Esq., seconded by Joseph Carrington Ridgway, Esq., and carried unanimously.

That the thanks of the meeting be given to the provisional committee for their past services, with an expression of its entire confidence in their future management, and reliance on the continuance of their exertions on behalf of the company.

Direct Northern Railway Office, 64, Moorgate-street, Feb. 14, 1845.

RAILWAYS IN CORNWALL.—It is now, we believe, definitely arranged to hold a public meeting at Launceston, to determine on the best means of obtaining a correct survey of the country through which a railway may pass between that town and Tavistock, and to adopt measures whereby an advantageous line may be constructed, which will connect the various inland towns of Central West Devon with those of East Cornwall and the reports of the North Channel.

NOTICES TO CORRESPONDENTS.

ALYEN MINING ASSOCIATION.—We are unavoidably compelled to postpone the insertion of the interesting reports, referred to in our last as having been received from the mines. We have adopted this course, as being more advisable than dividing them.

SANDBEE AND MEUSE RAILWAY.—Some remarks on the rival projects are postponed.

VENTILATION OF MINES.—We have apparently somewhat neglected this important subject of late—owing, in a great measure, to placing too much dependence on a valued contributor, who has, we regret, been prevented, fulfilling his expectations; we shall, however, turn our attention to the subject, and should feel obliged by some of our correspondents also adopting the same course, and favouring us with their views.

Received.—R. R. (Callington).—A Mine Adventurer (Flintshire).—M. T. (Greenock).

THE MINING JOURNAL

Railway and Commercial Gazette.

LONDON, FEBRUARY 15, 1845.

The Tariff question came on again last night in the House of Commons, when it was announced on the part of Ministers that the duty on the export of coal would be abandoned, and thus we have the first demonstration Government have come to of the impotency of their acts, and incompetency to prescribe rules for all—admitting, as they virtually do, that they were hasty in imposing duties which were prejudicial to our home interests, and only calculated to be of advantage to our foreign neighbours, as encouragement to work collieries abroad. We look with some anxiety as to what will be the course pursued with our copper and tin mines. We do not fear that coal will be exported from this country to smelt ores abroad, while we feel perfectly convinced that an import duty on foreign ores, of at least 50 per cent. over and above that now paid, may be fairly claimed, and which, as the subject is agitated by the smelter and foreign miner, we shall not only advocate, but so far as may be practicable, enforce—supported, as such advance is, by the opinion, not only of every one connected with the mines of Cornwall as adventurers, but by Mr. MICHAEL WILLIAMS, who, as a smelter, ought best to understand the relative position of the home and foreign miner. The question of the import duty on foreign ores has now assumed a tangible shape; for a reduction—or, rather, we should say, an abolition—is proposed by the foreign miner and the majority of the smelters in this country, which, however, is too absurd to contemplate. We have only to refer to the memorial—an important document, and valuable, as affording matter for argument—which appears in our columns of to-day.

We believe it has been seen but by few, our comments of next week will, doubtless, be read by many. The foreign mining companies naturally desire to be relieved, and the smelters wish to make more profit—while it is only natural the home miner should require and claim protection. Espousing, as we do, the mining interest at home, we will not allow the British miner to be sacrificed—at least, without an effort on our part to prevent an injury, which, once sustained, cannot be repaired.

Our return from the County—where we have been for the past fortnight, collating information as regards the operation of the Tariff, and the injurious consequences likely to arise from any mischievous alteration, such as the entire abolishment of all duties on the import of foreign ores, on which we have acquired much valuable information—being only on the eve of publication, we are precluded from entering on the subject of the meeting at Truro until our next Number. We then propose giving statistical details, which will, we think, not only afford the committee appointed some important data, but at least prove to the Government that any further interference can have only the effect of causing the Cornish miners, "One and All," to rise in opposition to a measure which, if carried out as proposed by the smelting interest and the foreign mine adventurer, must prove destructive to our home mines—at the same time that it will cause an incubus on the Poor Law Unions, not easily to be removed. As we are not prepared, then, to enter on the matter, it is meet that we should defer its consideration, and only now advert to it that it may not be supposed we are insensible to the importance of the question at issue.

Were we to offer an opinion at the moment, it would only be necessary to remark on the expression of Mr. MICHAEL WILLIAMS at the meeting lately held, which was to the effect, that a duty of 7l. 10s. was in his opinion one, which while it was only protective to the home miner, could not be injurious to the foreign miner; when considered with reference to the facilities afforded him for smelting in this country. However, as we have before said, this is a matter to be discussed with "facts and figures," yet it is only justice to Mr. M. WILLIAMS to state, that at the meeting at Truro he openly met the question mooted with reference to his position as smelter, which he admitted carried with it in the minds of many a prejudice calculated to affect him in the opinion of those to whom he was not well known; and he would willingly have withdrawn, but the sense of the meeting was decidedly opposed to any such course. It is, therefore, we may here observe, in reference to our article of last week, not Mr. WILLIAMS who is to blame, but those who have persisted in his retaining his position as a member of the committee. The remarks made by him, while they are highly creditable to him as a Cornishman, do not, however, in the slightest degree tend to alter our opinion.

In advertent to the part taken by Mr. M. WILLIAMS, it is equally due to Mr. TREFFRY to say, that when we expressed our opinion that he was "tame" (and tame he was) at the meeting at Truro, we did not mean for one moment to infer that he was aught but such as he has ever proved himself to be—the miners' friend. There is no man in the county (and the county will go with us in the expression) who ever proved himself so much the miners' friend. He may have had reasons for the course he pursued—with that we have nothing to do; but we trust and believe, when the time comes, he will not be found absent from his post.

Passing from the main object which induced us to visit the County, we now approach a subject which is to us highly gratifying, affecting, as it does, the relief of the widows and orphans of those miners and colliers whose lives may have been sacrificed in the prosecution of their labour underground—inasmuch that we are enabled to state such measure has the support, not only of the lord and adventurer, but the smelter, the merchant, and the working miner. During our sojourn in the county, two meetings were held, the one in Redruth, the other at St. Blazey—and, but for business requiring our presence in London, we should have further prosecuted this measure. However, we hope in a few days to return to the completion of the office we have imposed on ourselves—while it cannot but be pleasing to all interested in the advancement of an object so praiseworthy to find among its most strenuous supporters such names as Mr. Michael Williams, Mr. Humphry Williams, Mr. J. T. Treffry, Mr. N. Kendall, Mr. V. Robinson, Mr. Stephen Davey, Capt. Wm. Richards, Mr. Rashleigh, Captain Davis, R.M., Mr. J. Lyle, Mr. Way, Capt. Puckey, and a host of mining agents. The brief reports of the two meetings, which will be found in our columns of to-day, will give some idea of the progress made; and we trust that ere another month passes by we shall have the satisfaction of placing before our readers the outline of the institution, to which we shall then invite their support—convinced, as we are, that an object so charitable in its nature will have their succour and kindly aid.

A meeting of the shareholders in the Consolidated Trefoil Mining Company was held yesterday, and, having adverted to its movements on former occasions, we cannot allow it on the present to pass without a notice. A report from the committee was presented, as also one from Mr. H. THOMAS, who had been deputed to visit the mine. It was, although signed by two of the directors (one of whom

was Mr. EDWARDS, a defaulter), a severe comment and rebuke on the past, while to us it was, we must confess, unsatisfactory; and the meeting was, in the absence of any circular notice or advertisement, one which comes under the designation of "a hole and corner meeting." The question was mooted, whether an adjourned meeting, without due notice to absent proprietors, was legal, and, if so, then whether it was courteous; it, however, appeared to those present that it should be treated as both the one and the other, and the report, which was somewhat difficult to comprehend, having been submitted, was passed.—We think Mr. ROGERS, of the Registrar's Office, has fair game here, and we advise him to try his hand—while it will be our fault if we do not get our share of any penalties, for the benefit of the Widow and Orphans' Fund.

PRESENT STATE OF THE IRON TRADE.

(From our own Correspondents.)

GLASGOW, FEB. 12.—At no former period has the price of this article been so steadily advancing as at the present time, and from the orders pouring in, we hesitate not to say that a very considerable start will be effected at the forthcoming meeting of the trade, which takes place on Wednesday next. Sales have been made this week for pig-iron (No. 1) from 4l. 5s. to 4l. 10s., and few makers seem inclined to sell at these prices, in the confident belief that a still further advance will be realised in a short time.

—FEB. 13.—Sellers are holding firm to-day at 4l. 10s.; and it is now confidently believed that 5l. will be declared at the forthcoming meeting.

LIVERPOOL, FEB. 13.—An immense business has been done here this week in pig-iron; sales of Scotch pig-iron to a large extent, and chiefly to consumers, have been made at 80s. per ton, net cash in the Clyde, and further advances confidently expected. The makers in Glasgow being over-sold for many months, cannot take new orders. A movement has taken place in Welsh bars, which are now 8l. in Wales.

[For notices from other districts, see last page.]

From tables which have been just issued, we find that the exportation of metals from Russia is on the decline—the 20,000 tons of iron, shipped annually, some years since, having fallen to 15,000. The progress of gold mining in the Ural and Siberia is, on the contrary, remarkable. St. Petersburg alone has exported gold to the value of 9,690,481 silver roubles. Several millions were exported from Trans-Caucasia, and payments are commonly made in metallic coin.

A short time since we had occasion to advert to a prospectus for a College of Chemistry, for promoting that science, and its application to agriculture, arts, manufactures, and medicine; many complaints were then urged that sufficient publicity had not been given to the proposal, and various inquiries were made as to the intentions, locality, and utility of the project. In reply to these reasonable demands, a pamphlet has just been issued in the form of a supplement to the original prospectus, explanatory of its interests and objects. From this it appears that the design of the "College of Chemistry" is to afford practical instruction to students in the higher branches of chemistry, at a moderate expense, which may enable them to investigate subjects relating to the various branches of science, including agriculture and mining. To the high importance of such education, the pamphlet adduces many urgent considerations; it attests the lamentable ignorance existing on the subject of mineral substances, and the enormous loss to the country from rich metalliferous districts being thereby rendered utterly valueless—thus, for instance, although the ore termed zinc blende, or black jack, exists in unlimited abundance in England, yet, from not knowing how to separate the metal from the ore, our resources are untouched, and nearly all our zinc is imported from Belgium. Thus, too, all the antimony and bismuth used in our numerous manufactures is imported, while in Cornwall both metals exist unworked. These, and many other cases of the injury we experience, simply from ignorance of one useful science, are urged with considerable force, while it has been proved that silver produced from lead ores, yielding not more than 4 oz., will pay the expenses, in connection with the fact of Wollaston having discovered palladium and rhodium in the ores of platinum; Mosander the metals of lantanium and didymium in the ores of cerium; and Professor Rose, of Berlin, pelopium and niobium in the tantalite of Bavaria. Arguing from these instances that many a valuable metal lies hid in heaps of apparent rubbish, it proposes so to instruct and rear skilful scientific chemists in every town, district, and village, as to aid the agriculturist, manufacturer, and miner, by discovering new uses for hitherto neglected substances.

We understand that the directors of the London and Blackwall Railway have had it in contemplation to apply Filbrow's atmospheric principle to their line. Frequent interviews have taken place between influential parties in the company and the patentee, and, after various experiments, they have fully admitted the practicability and importance of the invention, and could one or two objections to which they considered it open, be removed, we believe they would have unhesitatingly adopted it; they conceived, however, that the mode of "picking up" carriages at intermediate stations was not as yet rendered sufficiently simple, and postponed, therefore, any definite arrangement till more satisfactory experiments on a larger scale had tested its feasibility.

During the course of the next week a meeting is to be held of the Steam Navigation Company, to which attention should be directed. The object of the society is chiefly to watch over the interests of steam-packet companies during the progress of private bills through Parliament, and to protect them from any sinister injury which such legislation might otherwise inflict. The meeting is left open to all persons connected with commercial operations, and to induce such corporations as the Royal Mail Steam-Packet Company to put themselves in connexion with this company.

GALVANISED IRON PATENT.—The important trial of Patteson and others v. Holland and others, for an infringement of this patent, which commenced on Wednesday, was concluded yesterday. The plaintiffs stated the patent to have been granted in 1837 to one Henry William Craufurd, for an "improvement in coating or covering iron or copper for the prevention of oxidation." The defendants put in several pleas, and amongst others—first, that they were not guilty; secondly, that Craufurd was not the first and true inventor; and fifthly, that Craufurd in the specification did not particularly describe and ascertain the nature of his invention, and in what manner it was to be performed. On all the pleas the jury found for the plaintiffs, except the fifth, on which they found for the defendants—thus virtually giving the verdict for them.

STEAM-BOILER EXPLOSIONS.—(From a Correspondent).—The steam-boiler explosions which have recently occurred, will most probably elicit the attention of engineers and others towards the prevention of such fearful events, and induce them to seek for such remedies as may render, at least, the consequences less disastrous. Every locomotive or other boiler explosion has, in the abstract, arisen from the same cause, imperfection of the so-called "safety-valve," which, after being used a considerable time, whether weighted by lever or by spring, becomes, from corrosion of the surfaces in contact, so firmly fastened at the parts which ought to be free, that it requires far more pressure to raise the valve than is indicated by the balance. The metal of which the pins and joints of the lever are generally composed is iron, and the springs and spring-frames of safety-valves are also generally made of it. Brass appears a better alloy for these purposes, being not so liable to corrosion. Undoubtedly, all accidents have not happened from this corrosion in the iron levers, springs, &c., as there is too much reason to believe, that in some cases the valves have been fastened down by persons who had access to them. What appears to be wanted is a real safety-valve—one which could not by any possibility be unfitted for its office. Can such a one be devised? It is natural to suppose, that as the steam pressure is equal on all directions, the explosion takes place at the weakest part. If, therefore, a small space at the upper side of every boiler were made so thin, that if the other "safety-valves" should not act properly, this weak part will become slightly ruptured, and the steam will thus get free access upwards into the air, and will not displace the boiler, as it does when the rupture is at the lower side, because then the escaping steam gets an abutment against a solid body. If, in a locomotive, this weak spot were at the top, and near the chimney, its being blown out would be a matter of comparative insignificance, merely causing a short delay. Upon a stationary boiler in a building, it would be advisable to have a pipe leading from the weak spot into the open air, so that the escaping steam would not blow the roof of the building, or injure parties in an upper story.

IRISH RAILWAYS.

The favourable notice in the Queen's Speech of the introduction of English capital into Ireland has done much to increase the confidence of speculators in Irish railways, and to raise them in the market as good investment for capital, especially at the present time, when the high price of Consols deters most prudent persons, who have spare funds at their disposal, from purchasing largely in them. The same remark applies equally well to the shares in some of our great English companies; it is impossible that they all can maintain their present high quotations, forced up as they are by the superabundance of money in the market, the disinclination to seek a speculative investment abroad, and the difficulty of finding a remunerative one at home.

We had intended in our present Number to continue our sketch of the Irish railways; but, for want of satisfactory information in regard to two or three southern lines, which have lately passed the Board of Trade, we have been obliged unwillingly to defer our notice for another week. There is one line, however—the Waterford and Kilkenny—which we are happy to find has passed the ordeal at Whitehall; by the construction of this line an opportunity will be afforded of testing the merits of wood as a substitute for iron, and, should the experiment prove successful, we shall be supplied with wooden railways in many localities where those of iron would not pay.

The last day on which applications will be received for shares in the Armagh, Coleraine, and Portrush Company, is, we find, the 20th instant. As this project has been so favourably noticed in all the City articles of the daily press, we think it desirable that our friends should be made acquainted with the reasons of its being so generally supported. The north of Ireland—as most of our readers, no doubt, are aware—is the wealthiest and most densely populated part of the country; but, until a recent period, there was no prospect of that density of population being made available for railway purposes, in consequence of the want of railway communication between Armagh and the Irish capital. This want is now about to be supplied by the formation of the Belfast and Ulster Junction line, which has been recommended by the Board of Trade. The Armagh, Coleraine, and Portrush line, will be, in fact, a continuation northward of the Belfast and Ulster Junction, passing contiguous to the large towns which lie in the route between Armagh and Portrush. The great quantity of agricultural produce grown in these districts, and sold in the towns for shipment, justifies the expectation that a large revenue will be derived from this branch of commerce. The line will pass through the extensive Tyrone coal-fields, now in full operation. The population in some of the northern districts is much larger to the square mile than in most parts of the south; along the Cashel line, the number per square mile, according to the report of the Railway Commissioners, is 250—on the Armagh, Coleraine, and Portrush line, it is 360.

The estimate of traffic made by the projectors is:—

From passengers	£23,000
Private carriages, parcels, &c.	2,000
Mails	820
Gross receipts	£77,070
Working expenses	25,690
Leaving a profit of more than	£51,380

or 8½ per cent. on capital.—Of the correctness of this estimate, we can, of course, know nothing; but, considering the length of the line, and the country, it appears very moderate. Ireland cannot but reap the greatest advantage from the carrying out of these great national works. We sincerely trust that they will be the harbinger of still greater benefits, social and political, and that her people may know how to appreciate and turn to advantage those elements of prosperity which now are about being placed within their grasp.

THE BOARD OF TRADE AND THE RAILWAYS.

The Gazette of Tuesday night contained a further report on the railway projects. The Board having had under consideration the Bolton, Wigan, and Liverpool line, the Patricroft and Clifton Branches, the St. Helen's and Rufford Branch, the Parkside Branch, the extensions into Liverpool, and the Trent Valley Railway scheme, have decided on reporting in favour of all the above, except the St. Helen's and Rufford Branch, and recommending a slight modification in the Trent Valley line. Three of the above approved schemes are proposals of the Liverpool and Manchester Railway Company—one only of their four projects being rejected. This shows a determination on the part of the Board to further the propositions of long-established and undoubted companies, whose character and resources are alike beyond dispute, rather than the speculations of unknown bodies; this is as it should be, so long as the principle can be adopted consistent with the other considerations of superiority in respect of accommodation for passengers and traffic. It will, we trust, put a speedy check upon the fearful mania for gambling in the share market, so ruinous to the interests, not only of the speculators, but the public. Sooner or later a panic must ensue, if illegitimate jobbing continues unabated; this will fall, at first, heavily on the dishonest or incautious traders, who have chiefly implicated themselves, but the crash will, we fear, eventually reach others, whose capital was connected, either directly or remotely, with the first parties; this will cause a stagnation in trade, and a crippling of every branch of our commerce, utterly ruinous to thousands, and distress similar to that experienced in 1825 will pervade the entire country. Distrust in the whole system of railway traffic, and of bona fide railway investment, will ensue—fair legitimate enterprise will alike be prostrated—and thus, from the rash and dishonourable practices of a few jobbers, the country be plunged in distress bordering on bankruptcy, and our wholesome monetary institutions may possibly be deranged! Such things must be looked to; before it is too late, measures must be taken to crush the evil yet un-matured. Let the Legislature, by some firm and decided line of conduct, remove the more immediate cause, and at once check the criminal proceedings of reckless jobbers, and the fatal consequences which every one must foresee.

PROGRESS OF RAILWAYS.

By the following returns, it will be seen that the increase on traffic receipts still continues steadily progressive, which leads to the conviction that railway shares will prove the most advantageous medium of investing capital, and accounts for the ardour of speculators remaining undiminished.

Increase in traffic returns for five weeks in this half-year, compared with the same period of the previous year:—

Birmingham and Gloucester	£2901	London and South-Western	£1421
Chester and Birkenhead	365	Manchester and Birmingham	3539
Eastern Counties	1819	Manchester, Bolton, and Bury	568
Edinburgh and Glasgow	1288	Manchester and Leeds	3887
Glasgow and Greenock	255	Midland Company	6866
Glasgow, Paisley, and Ayr	1157	Newcastle and Carlisle	1339
Grand Junction	3228	North Union	2316
Great North of England	1282	Preston and Wyre	452
Great Western	11264	South-Eastern and Dover	11579
Liverpool and Manchester	1905	Sheffield and Manchester	840
London and Birmingham	3383	Ulster	222
London and Brighton	609	York and North Midland	922
London and Croydon	709		
		Total	£62,603

It appears that the negotiations entered into between the respective committees of the late Devon and Cornwall Central Line and the Cornwall Railway Company have suddenly terminated. The proposals made by the former were found to be wholly inadmissible, and have, therefore, been declined. The Cornish gentlemen interested in the undertaking immediately commenced active operations, and forthwith appointed directors whose names will give increased confidence in the undertaking. They are the Earl of Falmouth, J. T. Trevelyan, John Allen, Robert Wre Fox, John Gwatkin, George Smith, William Tweedy, J. Vivian, and Michael Williams, Esq. This has the appearance of a good working committee, and we feel assured its labours will soon be repaid by an increased trade in this rich mineral district; in no province will the benefits of ready transit be more deeply felt, and to the neighbouring counties the advantages will be reciprocal. The managing committee of the Central Cornwall and Devon Railway Company have already determined to apply to Parliament this session for a bill sanctioning a line from Falmouth to Bodmin, and, subsequently, to Lanneston, and Exeter. The length of the line at present fixed for working on is about thirty-six miles. We are happy to perceive that the Bristol and Gloucester Company have already noticed the Cornish line with favour and approbation. Such assistance will be doubly valuable, from the high source from which it emanates.

NEATH ABNEY IRON COMPANY.—On Saturday last, a meeting of the shareholders of this company was held at the company's office, for the purpose of arranging a demand for increased wages. Mr. Trevelyan said that he was perfectly willing to allow an increase, when the orders in hand, which had been taken on the low prices, shall have been completed. —*Swansea Journal.*

THE COPPER TRADE—ENGLISH AND FOREIGN MINES.

We have in another column briefly adverted to the following memorial, which, as we believe, was, if not privately printed, at least, privately circulated, for we could find not one copy in Cornwall, except from a smelter's hands. It is too important to be allowed to escape the notice of the miner. We subscribe the names of the parties, and next week shall make some remarks—in the mean while, we hope to have the aid of correspondents.

The following is a copy of the Memorial on the subject of the Duty on Foreign Copper Ore, presented to the Right Honourable the Lords of the Committee of the Privy Council for Trade, on Monday, the 3d of February, by the following deputation:—Sir John Pirie, Mr. Charles P. Grenfell, Mr. Armstrong, Mr. Brownall, Mr. Druce, Mr. Boardman, Mr. Dochett, Mr. Julietta, Mr. Keats, and Mr. Templeman.

The Memorial of the undersigned merchants, shipowners, importers of copper ore, and copper smelters,—respectfully sheweth,

That they are deeply interested in the continuance of the trade of importing copper ores into Great Britain from foreign parts, which trade has increased from 2550 tons of ore, which was the quantity imported in 1831, to 55,720 tons of ore, of the value of near 900,000*l.*, in the year ending 5th January, 1844; and which has been the means of securing to this country the manufacture and supply of full three-fourths of all the copper consumed in the world.

That in consequence of the duties recently imposed on foreign copper ores imported into Great Britain, and of the jealousy with which these duties are viewed by the foreign miners, and also by the foreign consumers of copper, your memorialists are informed and believe that the trade in foreign copper ores to this country is likely to be materially diminished. To prevent so great an injury, your memorialists beg respectfully to recommend the repeal of the existing duties, and they offer the following statements (which they are prepared to support by evidence) in support of their recommendation.

The principal advantages arising out of the existing trade of importing and smelting foreign copper ores in Great Britain are realised by shipowners, merchants, smelters, proprietors of collieries, and collaterally, but in an important degree, by the owners of British copper mines. To the shipowner the advantage arising from the importation of near 60,000 tons of ore in British vessels, at freight varying from 2*l.* 10*s.* to 6*l.* per ton, is very obvious, especially as it is enjoyed exclusively by British ships, with two exceptions only.

The trade from Cuba is carried on in vessels built and equipped for the purpose, and employed constantly in the trade; and copper ore from Chili and Peru is imported in British vessels, sometimes as ballast under coffee, wood, hides, and other goods, but more frequently in whole cargoes, thus affording a valuable return to vessels trading to the Pacific, Australia, and New Zealand; and as the west coast of South America supplies few articles, and those generally in small quantities (which has been, and is, seriously felt by other nations), securing to the British shipowner great advantages over the Danes and Hamburgers, trading from countries belonging to the Zollverein.

The British manufacturers and exporting merchants derive great advantage from the foreign copper ore trade, inasmuch as it forms a remittance for British manufactured goods sent to the countries from whence the ores are imported. The want of a return of this nature is felt seriously by the German, French, and American merchants and manufacturers, and prevents their competition with the merchants of this country, severe as it actually is, from being as successful as, without the advantage possessed by the latter in the shipments of copper ore, it most probably would be. For were this trade lost, or very much curtailed, and the principal return confined to dollars or silver, the premium on the latter, as experience has shown in any partial suspension of the ore trade, would be advanced so materially as seriously to prejudice the British merchant. Nor is it groundless to anticipate that the continuance of an oppressive duty on one of their principal exports, may induce the Chilean Government, with which we have no treaty, to adopt retaliatory measures against Great Britain, and in favour of the United States and other countries.

The copper smelters and manufacturers are an extensive and important class, and their existence now mainly depends upon their receiving adequate supplies of foreign copper ore, inasmuch as the copper produced from foreign ores is imported in nearly three-sevenths of the total quantity made in Great Britain.

The English brass makers and manufacturers are also materially interested in the continuance of the trade, inasmuch as the United States, and other countries which are at this time large consumers of British manufactures, would infallibly, if copper smelting-works were established in their own territories, or in nations, as Chili, with whom they are anxious to extend their commerce, discourage, by every means in their power, the import of manufactured produce from Great Britain, for the purpose of fostering their own rising establishments. This applies particularly to the United States, where sheathing copper only is admitted free of duty, and that after considerable discussion and with great difficulty; but which, from the jealousy with which they look at our manufactures, and from the fact of their having at present considerable copper rolling-mills established, would not be allowed, as soon as they could see their way clear for a sufficient supply of copper independent of Great Britain.

The British copper miner is also greatly benefited by the trade in foreign copper ores being retained in this country, for though he would obtain a higher price for his ore provided no foreign ore was raised, yet as this is clearly out of his power to put a stop to, it is for his interest that the whole of the foreign ore should come into the hands, and be under the control, of the British copper smelter (whose interest it is to support the British copper mines), rather than be smelted in France, Chili, or the United States, which countries, having no common interest with Great Britain, would compete with the British smelter, the effect of which would be great and unnecessary competition, and a ruinous depression of prices.

It is a singular and certainly important fact, that though the import of foreign copper ores has progressively increased, the price of British ores is higher now than it was in 1832, when the importation commenced; undeniably proving that the trade as it has hitherto been carried on has been a very beneficial one to the country, and not in any way injurious to the interest most likely to be affected by it; which is also confirmed by the fact, that the quantity of copper now raised from the mines of Great Britain is as great as it was before the foreign copper ore trade was established, the fact being that the mines of this country are sufficiently protected by the very heavy charges attaching to the importation of all foreign ores, and also by the greatly increased charges for labour and materials to which the foreign mines are subject. The advantages which have resulted to the trade and manufactures of Great Britain by the import of foreign ores, do not rest on so great and manifest a superiority in the position and resources of this country as to render them free from danger of competition and rivalry from other nations, and this position, contrary to the expectation of all parties connected with the trade, has been lowered by the abolition of the system of smelting in bond, and by the imposition of duties on importation.

It is the cheapness of fuel, and the skill and industry of the smelters, that give to Great Britain the advantages it at present derives from the trade, and these are found insufficient to counteract the inevitable charges of freight and insurance, and the pressure of the existing duties. We are prepared to prove that the smelting of copper ore in Chili and Peru, which has always been carried on to a limited extent, has of late years, and especially since the duties in question were imposed, received a strong impulse, and has greatly increased; and that large exports of the various materials required for the construction of smelting-furnaces have recently been made from this country.

We are also prepared to show that ores containing a large proportion of copper, which were formerly brought into this country to be smelted, are now smelted entirely abroad, and principally in France; and that recently orders have been received in Chili, and executed, for the purchase of copper ores and regulus for the purpose of being smelted in the United States. We also have evidence to show that copper smelting-works have been established, and are about to be extended, in Russia, where copper ore of excellent quality is found, and bituminous coal has recently been discovered, and about to be worked extensively.

It is also a known fact, that the trade of this country in cotton goods with the countries bordering on the Pacific has been, and is, greatly interfered with by the United States manufacturers, who get their returns in copper. In addition, we are prepared with evidence to show, that complaints have for a length of time been earnestly made from Chili, Peru, Cuba, and Italy, of the prejudicial operation of our import regulations in respect of copper ore, and that though (owing to loans which had been made to the miners previous to the duties being imposed, according to the general usage of the country) the import has not yet fallen off, yet that such imports will very speedily be greatly diminished. We can also show that inquiries have been made, and are making, with a view to establish copper smelting-works in France, Holland, and the United States—that an offer has recently been made to an English copper mining company, connected with Cuba, to smelt their ores in France, and that smelting-works are actually erected, or are in progress of erection, in the United States, for the purpose of smelting the ores of Cuba and Chili; that the Chilean Minister of Finance is himself a smelter of copper ore there; and that the abolition, for smelting purposes, of the existing duty on coal imported into Chili has recently been proposed, and is under the consideration of that Government.

We can also show undeniably that the freight of copper ore to Great Britain in British ships is much higher than would be paid to any of the countries enumerated as about to enter upon the trade; and, lastly, that notwithstanding the imperfect knowledge of smelting in Chili, a sufficient profit is now realised there to induce a large extension of the smelting-works in that country, especially when they learn, as they very speedily will by the aid of British workmen and capitalists, to improve their processes, and to render them more efficient and economical.

On these grounds, affecting materially the welfare of merchants, shipowners, manufacturers, smelters, and miners, the undersigned would most respectfully, but strongly, urge on their lordships the expediency of reconsidering, with a view

to their entire abolition, these duties, which, trifling and inconsiderable in point of revenue, are operating injuriously on such varied and important interests.

This memorial was signed by—

LONDON.

John Pirie and Co.
For the Colne Mining Company—William Leekie, secretary.
Joseph Somes.
Francis Ridley.
For the Copiapo Mining Company—Frederick Grellet, secretary.
For the Royal Santiago Mining Company—W. Dickson, secretary.
For the Mines Royal Copper Company—B. J. Spedding.
Pro Gammell, Brothers, and Co., Glasgow—G. S. Walters.
Vivian and Sons.
Pascoe Grenfell and Sons.
J. R. Templeman and Co.
Anthony Gibbs and Sons.
A. A. Gower, Nephews, and Co.
R. J. Nevill, Llanelli—per A. Druce.
Alexander Druce.
Thomas Devas.
Rickards, Little, and Co.
LIVERPOOL.
Todd, Naylor, and Co.
Brownells and Co.
William Jos. Myers and Co.
Graham Maclean and Co.
John Ridgway and Co.

LIVERPOOL.
Hegan Hall and Co.
Frederick Huth and Co.
C. Taylor, Son, and Co.
The British and Foreign Copper Company.
Thomas and John Brocklebank.
Cotesworth and Wynne.
Imrie and Tomlinson.
William and John Lockett.
Charles R. Taylor.
S. Prowse and Co., bankers.
John Bibby and Sons.
Hughes, Cowie, and Co.
Sykes Schwabe and Co.
Currie and Teilo.
Newton, Lyon, and Co.
John C. Jack.
Chapman, Bowman, and Co.
Rawson and Co.
George Frederick Dickson and Co.
Gibbs, Bright, and Co.
Joseph Green and Co.
Brown, Shipley, and Co.
Rathbone, Brothers, and Co.
Alison, Camberlidge, and Co.
JOHN FREEMAN AND COPPER COMPANY.
Stephen Priest.
Thomas P. Jose.
John Irving.

THE RAILWAY DEPARTMENT OF THE BOARD OF TRADE.

TO THE EDITOR OF THE MINING JOURNAL.

SIR,—Following up the intention which I intimated in my letter of last week, I venture to offer a few suggestions on the important question of subjecting railway schemes to a more stringent preliminary scrutiny than these projects have hitherto been required to undergo. That the Government will ultimately be constrained to invoke the aid of Parliament in rebuking the false principle which has placed the highways of Great Britain and Ireland in the hands of mercantile companies, I do not entertain a doubt—and the earlier our rulers grapple with the gigantic difficulty the better. To the existing jurisdiction of the Board of Trade in railway matters no objection can be reasonably made, so far as the intelligence and integrity of the members are concerned; but it is now perfectly plain that the power vested in the Railway Department is of so equivocal a character, as to be on the whole incapable of working out any beneficial national result. Its decisions govern the rates of premium on the Stock Exchange; but its recommendations to Parliament (according to the responses of the Treasury Bench) will not carry the weight which was assumed for them; therefore, the Railway Department is now dwarfed into a sort of examiners' office, for lightening the labours of Parliamentary committees—with this dangerous drawback, that their favourable opinion is abused to promote enormous gambling speculations, which rival the worst species of swindling. It may be urged, that the lines recommended by the Board of Trade are presumptively the best lines, and, as such, demand properly the highest prices in the market; but unfortunately there is nothing definitive in the decisions of the Board of Trade, and, consequently, competing schemes, though essentially bad, may still flutter in the noxious gales of popular credulity. Several clever members of the House of Commons, among whom Viscount Howick and Mr. Wakley take a lead, have denounced with great vigour the flagrant evils of the present system of promoting railway bills before Parliamentary committees. The whole *arcana* of professional, or rather trading, tact, on the part of money-getting lawyers is freely disclosed to us; the interminable speeches and measureless fees of counsel are rudely commented upon; and committees are declared by committee-men themselves to be disgraceful to the age and nation. But I lend a deaf ear to these caustic censures—for, who are really to blame for the continuance of these abuses but the chairmen of committees, who suffer themselves to be snubbed into supineness by a jumble of impudent barristers, who talk against time, with the sole object of spinning out a painful case? Every professional man, whether counsel, solicitor, or agent, is interested in prolonging the proceedings of a committee; and, if the members abdicate their just functions by yielding to the nonsense and impertinence of hired paltry pleaders, how can we expect that these professional babblers will restrain the profusely paid prolixity of their stupid speeches? It is evident enough that lawyers ride rough-shod over committees of the House of Commons, crushing common sense under the hoofs of technical tyranny and arrogant mystification. Let members of committees check these shameful excesses at the proper time and in the proper place, instead of asking *Palinurus* Peel to quit the helm of the State, in order to regulate the verbosity of a few chattering barristers, by paying them, forsooth, for the job, instead of by the day! Sir Robert Peel is much more worthily employed than in executing the task which Mr. Wakley would assign to him.

But in the general consent that railway schemes have accumulated into a mass of public evil, there is at least a loud call for some effectual remedy—and I boldly affirm that no remedy can be found save that of confiding ample power to a proper tribunal, constituted for deciding on the *principle* of proposed railway lines. It is stark absurdity to allow a firm of adventurous solicitors to get up, in conjunction with a jobbing engineer, a railway scheme, which is intended to feather the nests of the wily projectors, and which does not possess one feature of public utility to recommend it. The solicitor inveigles a handful of clients to form or canvass for a committee, a lying prospectus flames in the advertising columns of the *Times*, some worthy wet-nurse at the Stock Exchange suckles the bastard bantling, and, when the rickety project is upheld by a certain number of applicants for shares, the thing is sufficiently matured for access to the Board of Trade—all the mischief arising from the public patronage of a foolish and fraudulent scheme being already in full perpetration! And this, be it known, is the fruit of a system whereby the great thoroughfares of the most important country on earth have passed from the control of the Crown, and have sunk and are still sinking into the covetous clutches of scheming commercial companies! Truly, our Corsican adversary was not far from the mark when he stigmatised us as a "nation of shopkeepers." If we were so in Napoleon's day, we are ten-fold children of the counter and counting-house in these days of sordid speculation, in which it is to be feared many a railway will prove a road to ruin.

Now, instead of permitting mercenary schemers to palm upon the public, as at present, 240 projects of railways, what is to prevent the Government from recommending a Royal Commission, which shall be constituted for the purpose of inquiring into the soundest system of railway communication that can be applied enlargedly and comprehensively to the national needs of Great Britain and Ireland? If it be deemed necessary to call in the assistance of capitalists to accomplish railway undertakings, still let there be a given field marked out for salutary speculation and useful enterprise, not a chaotic assemblage of conflicting schemes, thrown by peddling promoters into the contrary currents of the money market. It is of no avail that commissioners should be instructed to prosecute, as in Ireland, what may be fitly styled amateur inquiries, in which judicious results are arrived at, but utterly void of benefit, because schemes are started by companies who despise the principles proclaimed by the Government Commission. I speak of an authority far transcending such inoperative investigations. I would have a board dignified and invigorated by every element which could sanction and strengthen great public decisions, and from the deliberations of that board should proceed the plan of national railway communication, which should be considered as the standard system of the State. Just see the important advantages flowing from so prudent a proceeding. Great trunk lines of acknowledged utility would in the first place permeate our land—lines running with unswerving directness between great termini, not strange sinuosities, deflecting every dozen miles of route, in order to seduce certain localities to furnish shareholders and supporters of a bill. Let it be always borne in mind that the grand object of trading projectors is to launch a railway, and that in effecting this aim all the permanent interests of the public are too frequently sacrificed. The interest of the public is, to have the most direct line—nay, it is the interest of a company—for, every perch needlessly added to a railway occasions a permanent increase of expense, in maintenance and working, independently of the augmentation of outlay. Nor can anything be more delusive than the argument, that population and traffic justify departures from the true line of a direct railway. The fact is, that if an industrial population and real traffic exist apart from the line of railway, you need not deviate towards them, for they will infallibly come to you. This common sense consideration never occurs to railway-mongers, because they care nothing about the *principle* of a railway; all they want is, to multiply jobbing adherents, and to promote the sale of shares. But, in fixing the routes of great trunk lines, the relations of districts to each other would soon be so distinctly defined as to prepare the

way for proper and profitable branch lines, which cannot be advantageously devised until trunk lines have been in full operation.

Thus, by the instrumentality of the Crown, security would be afforded for the establishment of a national railway system; and, under the protection of wise principles, careful capitalists would approach the Legislature to obtain Acts of Incorporation. At present, all is corruption and confusion. The Government, awaking from its slumber, gives a questionable power (which is subsequently attenuated by Parliamentary explanations) to a department of the Board of Trade; Lord Dalhousie, a nobleman of first-rate faculties, is appointed to preside over it; Messrs. Porter and Laing, gentlemen of great ability and attainment, assist his Lordship; they toil day and night, and the result of their labours is, to give a fiercer impetus to the monstrous gambling of the Stock Exchange! Positively, nothing more—for the board have no function in emanating any useful, honourable, national project; they have only the task of groping into the sordid sinister schemes of a black band of solicitors and engineers. Now is the time for a vigorous effort on the part of the executive to free the country from the disgrace and disaster of railway speculation, wholly destitute of just principle; and I trust Sir R. Peel and his colleagues will evince sufficient wisdom and courage to meet the exigencies of the case.

In another letter I will endeavour to point out the vast importance of a sound system of railway communication in Ireland, whose progress in industry, peaceful habits, improved civilisation, and extended comfort, may be prodigiously facilitated by the countenance which Government shall wisely give to railways. A recent visit which I made to the Sister Isle enabled me to form a clearer judgment upon this deeply interesting subject.

THOMAS MULOCC.

Parliamentary Agency Offices, 3, Cannon-row, Westminster, Feb. 10.

Proceedings of Public Companies.

MEETINGS.

THURSDAY.—Durham County Coal Company, at Eleven.—Imperial Brazilian Mining Company, at Eleven.—London and Blackwall Railway, at Twelve.—Southampton Dock Company, at One.—Pontefract and South Shields Railway, at One.—European Gas Company, at Two.

SATURDAY.—Hall and Selby Railway, at Twelve.—Oxford, Worcester, and Wolverhampton Railway Company, at One.

Boulogne and Amiens Railway Company, 21.

CONSOLIDATED TRETOIL MINING COMPANY.

An adjourned meeting of the shareholders in this company was held at the offices, on Friday, the 14th inst., RICHARD THOMAS, Esq., in the chair.

The CHAIRMAN having stated the objects of the meeting, and the advertisement having been read convening the meeting held on the 14th ult., as also the proceedings thereof, a PROXYHOLDERS inquired whether any notice had been given to absent proprietors of the adjournment?—which being answered by the CHAIRMAN in the negative, it was suggested that the meeting was not legally convened, and that, although the business might be proceeded with, it was right that an adjournment should take place, and proper notice given.—To this suggestion the CHAIRMAN assented, and the report was then read, with one from Mr. H. Thomas, on the state of the mines, and proposed workings, from which it appeared that the sum of £5000, and operations for the next twelve months, would be required to put the mine in a productive state of working. Certain recommendations, with the view to lessen the expenditure in London, were proposed by the committee, and that new certificates should be issued. It appeared that the accounts of the company had been kept in a most imperfect manner. It was stated that the engine purchased from the Polgooth adventurers was efficient for the purpose, and that by its application 10000 would be saved in money, and 10000 in time; that as regards East Tretoil the mine had been attended with considerable loss, and that in future, if arrangements were not come to with those who had not consolidated their shares, separate accounts should be kept. The report was signed by Mr. Edwards (a defaulter) and the chairman, as members of the board, and by two of the committee, one being absent, and the other declining.—From a statement read by the chairman, it appeared that the balance in the bankers' hands on the 14th inst. was £9000, 13s. 3d., and that on the 31st December last the liabilities of the mine, exclusive of the purchase of the engine (£8000), was £16184 16s. 6d.—leaving a deficit up to that period of £13107 3s. 3d., to which was to be added the losses since incurred on the mine, and the claims of the secretary, and other expenses.

The meeting, which was but thinly attended, was unanimous in the resolution that the report should be received and adopted, and another meeting for the appointment of directors to fill the vacancies (there being only two directors, and the regulations requiring five) having been determined upon, the meeting separated, it being understood that the call made of 5s. per share some months since should be paid, as soon as it was practicable to obtain the same. Nothing was said as to the recovery of former calls, or the course recommended to obtain the payment thereof.

AUSTRALIAN AGRICULTURAL COMPANY.

A special meeting of this company was held at the offices, in King's Arms-yard, Moorgate-street, on Wednesday, the 12th inst., for the election of a director and auditor.—J. S. BROWNING, Esq., M.P. (the governor), in the chair.—The name of George Smith Thornton, Esq. (late an auditor), was submitted, to whom there was no objection raised, and he was elected a director accordingly. The vacancy was caused by the election of A. W. Blane, Esq., to the deputy-governorship.—There being, consequently, a vacancy in the list of auditors, the name of William Tooke, Esq., was proposed, who was elected accordingly.—The meeting then adjourned.—There were present also the deputy-governor, C. D. Bruce, Esq., the Hon. J. T. Leslie Melville, J. H. Ravenshaw, Esq., and Thomas Tooke, Esq. (directors), and several shareholders.

LONDON AND BIRMINGHAM RAILWAY COMPANY.

The usual half-yearly meeting was held at the Euston Station, on Wednesday last, G. G. GLYN, Esq., in the chair.—In the course of a series of preliminary remarks, the CHAIRMAN alluded to the various schemes which the directors had proposed, most of which had received the sanction of the Board of Trade, and also congratulated the meeting on the state of the society's affairs.

From the report, which was read by Mr. CRICK (the secretary), it appeared that the revenue for the half-year ending the 31st of December amounted to £456,447, of which £450,479, was derived from the ordinary traffic, and £5968, from interest on the employment of cash balances and from rents. The charges amounted to £182,543, of which £64,132, was for working the line, and £66,107, for parish rates, Government duty, &c. The ordinary traffic exceeded the amount in the corresponding half-year of 1844 by £13,122; the charge for working it was less by £734, making the comparative rate of half-yearly charge to receipt as 212 8s. 1d. per cent. in 1844, to 222 7s. 3d. in 1845. The net proceeds, £278,904, added to the surplus of the preceding half-year, £15,977, left a clear profit of £293,881; and on this amount the directors recommended that a dividend of 5s. be again declared on every 100l. of the company's capital stock, leaving a rest of £7,993, to the credit of the current half-year. The report proceeded to state, that the Warwick and Leamington line was opened on the 9th December, and that the traffic, short as the experience of the working of the line had been, much more than equalled their expectations. The advanced state of the works on the Northampton and Peterborough line promised to justify the anticipations of the directors. The report of the progress making in the Lancaster and Carlisle line continued to be satisfactory. The report concluded by referring to the proposed extension lines of the company, for which arrangements had been made.

The report was adopted, and resolutions passed—authorising the directors to lease the Churnet line, by which a direct communication would be made with Manchester—to lease the Trent line—and to construct a branch line from Dunstable to the London and Birmingham line at Leighton Buzzard; a resolution was also passed, empowering the directors to purchase the West London Railway.—Five retiring directors were unanimously re-elected.

GREAT WESTERN RAILWAY COMPANY.

The half-yearly meeting of this company was held on Tuesday last, at the Paddington Station, CHARLES RUSSELL, Esq., M.P., in the chair.

There were one or two points in the chairman's address deserving of notice, from their probable effect on other bodies. It was announced, that in consequence of the Board of Trade having reported against their Oxford, Worcester, and Wolverhampton scheme, the directors had determined to await the avowal of the reasons which had influenced them in their decision, and, if those appeared to be sufficient, to acquiesce in them—but, if otherwise, to protest before Parliament against the report of the Railway Board, and prosecute their claims by a ulterior appeal to the Legislature. It was also contemplated to open a railway line through the mineral districts of Monmouthshire and Glamorganshire, thus facilitating the communication with the harbours of Pembroke, and at the same time creating a thoroughfare for the entire traffic to the South of Ireland; the harbours of Wexford and Fishguard would be necessarily improved, and a line constructed between Wexford and Dublin in one direction, and to Waterford in the other. The receipts of the company had increased in a ratio much beyond the extension of their line; they were enabled to give a dividend of 6 per cent. for the year, on a considerably extended capital, and still to carry forward a large balance to the next year's account. These advantages are, it appears, to be shared by the public, for whose benefit the company were engaged in a revision of the rates and charges, and contemplated some remission both in the passenger and merchandise departments. The directors also recommended an alteration in the second-class carriages, so as effectively to exclude the weather, and proposed from the 1st March to run a quick train from London, which should perform the journey to Oxford in one hour and a half, to Cirencester in two and a half, Gloucester and Cheltenham in three and a quarter, Bristol in three and three-quarters, and to Exeter in

five hours. These, doubtless, are subjects for great gratulation, as it is satisfactory to see a company of such high position thus making the interests of the public concurrent with their own; the quick trains will be an inestimable boon, and the contemplated improvement in the carriages has already created a lively and universal satisfaction. We feel assured that the company will themselves reap a benefit fully commensurate with that of the public—the interests of the one are immediately connected with the other; and we trust, before long, we shall see other lines following in the steps of this great and leading company.

LONDON AND GREENWICH RAILWAY COMPANY.

A general meeting of the shareholders was held on Wednesday last, to submit the results of the directors' negotiations with the South-Eastern Company. It appeared that the scale of both companies had been affixed to an agreement, leasing the line and branches of the London and Greenwich for a period of 999 years, subject to a rent of 36,000l. for the first year, increasing 1000l. annually, till it reached 45,000l.; the land and buildings of the company had also been sold to the South-Eastern for 18,000l., and the engines, carriages, &c., for 22,808l. The company had a balance in hand of 12,000l., from which considerable sums had to be deducted.—Mr. ELLIOT, complained, that the directors had not made a better bargain, and considered them blameable in not treating with the North Kent, which latter company had also been seriously injured by the refusal of the Greenwich line to negotiate with them.—The meeting voted gratitudes to the amount of 1175s. to old faithful officers, and compensations to one or two servants who had received injuries while in the employment of the company.

NORTHERN AND EASTERN RAILWAY COMPANY.

A meeting of shareholders was held on Thursday last, when it was determined that a dividend of 5 per cent. per annum be paid on the paid-up capital of the company for the half-year ending 31st December last, and that 11s. 6d. be accorded on the registered shares (450 paid), 2s. 3d. per share on the 10l. registered shares, and 10s. per share on the scrip shares of 100l. The sum of 10,773l. had been carried to the capital, arising from the premium obtained on the sale of 1068 unappropriated shares. The receipts of the company for the last half-year amounted to 47,107l. 14s., being an increase of 8440l. 6s. 5d. over the corresponding period of 1843—the total increase on the year amounting to 11,057l. 2s. 2d. The balance of the traffic account was 1821l. 6s. 10d., and the balance of 103l. 3s. 4d. carried to the capital.

DIRECT NORTHERN RAILWAY.

A general meeting of the shareholders in this undertaking was held at the office, in Moorgate-street, on Thursday, the 13th inst.—The chair was taken by the Hon. WILLIAM AINSLEY, M.P.—The SECRETARY read the report of the committee of management, which enumerated the various towns and places from which they had received applications in favour of their line. The committee, in conclusion, trusted for a continuance of that confidence hitherto reposed in them by the shareholders, as the best inducement to their successful efforts.—The CHAIRMAN said the committee had prepared a memorial to be submitted to the Board of Trade, but he put it to the meeting whether it would be prudent to have it read then, as the publicity might possibly be prejudicial.—Mr. AID. COPELAND objected to it being read.—The opinion of the meeting being against it being read, it was left with the committee, when the report was adopted.—Mr. MATTHEWS, M.P., moved the resolution for removing the 9th clause from the subscribers' agreement (which limited the liability for expenses to 10s. per share, in case the Act should not be obtained), and giving power to the committee to apply the funds already subscribed for the defraying of present expenses, and those that might be incurred.—Mr. DUGG, CHAIRMAN seconded the motion (which was supported by Mr. AID. COPELAND), and was passed unanimously.—Mr. CHOMMIE (of Aberdeen) moved a vote of thanks to the committee of management, for the great attention and labour they had bestowed on this undertaking.—Mr. RIDGWAY seconded the motion, which was passed by acclamation.—The CHAIRMAN returned thanks, and hoped they should ultimately be successful. If the Board of Trade refused to do them justice, he had no doubt they should meet with it before the House of Commons, with such evidence as they were able to produce.—The meeting then adjourned.

DISS, BECCLES, AND YARMOUTH RAILWAY COMPANY.

The shareholders of this company met the provisional committee on Thursday last, to receive their report, and consider the expediency of resisting the late adverse decision of the Board of Trade. The report adverted in the strongest terms to the engineering and local advantages, the comparative economy, and the commercial benefits of the projected line; and, considering that their claims could not have been fully discussed or understood by the board, they recommended the prosecution of their design before Parliament. To enable the committee to carry out their operations the more successfully, they advised the proprietors to place at their disposal the full amount of the deposits paid upon the shares (11 10s. each), which they thought would be amply sufficient for all the purposes of immediate operations.—After a short discussion, the meeting coincided with the views of the directors, and gave them full powers to proceed forthwith; and this they considered the more advisable, inasmuch as the Board of Trade, by recommending postponement only, tacitly admitted the advantages of the project, and made it merely a question of time. The report was, therefore, adopted in every particular, and carried unanimously.

DIRECT LONDON AND PORTSMOUTH RAILWAY COMPANY.

At a general meeting of the shareholders of this company, on Monday last, it was unanimously agreed to proceed with the claims of this undertaking, provided the committee would guarantee the purchase of the shares at 2l. 3s. 6d. each, free from all deductions, of any holders who might be unwilling to run the risk of increased expenses; if, however, this arrangement could not be effected, the expenses should not exceed 10s. per share.

SOUTH DEVON RAILWAY COMPANY.

The half-yearly meeting of the proprietors of this company was held at Plymouth, on Wednesday, the 12th inst., when rather a scanty number assembled to hear the report, which contained no matter of interest whatever—the only important information given being the extension of the line to Tavistock, which was opposed by Sir Ralph Lopes, Bart., Mr. Arundell, and Mr. Smith—the advance to the Lannecorn line of 65,000l., and the intention of the company to lower their fares, improve their second-class carriages, and run quick trains from the 1st of March, all which circumstances were previously notified either at the Great Western meeting at Paddington, or other interested bodies, some time since.—The report, after slight discussion, was adopted.

POLONCEAU'S PATENT ELASTIC BITUMEN COMPANY.

A meeting of shareholders was advertised for Monday last, at the offices of Messrs. Dod and Wray, solicitors, Great Marlborough-street, for the purpose of adopting measures for the proper investigation of the affairs of the company, and for obtaining from the directors a full and satisfactory explanation as to the great deficit of 10,000l. out of the 20,000l. deposit money originally subscribed; as, also, showing how the interest which has been accruing upon the said deposit since its subscription in May, 1838, has been applied. In consequence of the short notice, however, there were not sufficient present to form a meeting, but some explanations made by Mr. King (of Liverpool), in defence of the board of directors, will, no doubt, be interesting to the shareholders. It appears that the company, on its formation, purchased the interest of the patent for 5000 free shares, which would entitle the holder to a certain division of the profits of the company when they should be enabled to pay 5 per cent. to original shareholders. After struggling on for eight years, all experiments, either from the worthlessness of the invention, or ignorance to work it, have completely failed; this, added to the expenses incurred with the London board of directors, and the defalcation of their agent in town to the amount of 10,000l., and continual indentments for nuisance at Liverpool, so crippled the resources of the company, that they resolved forthwith to wind up their affairs, and abandon the scheme altogether. But in this they were again defeated, for no sooner had they declared their determination than they were threatened with a Chancery suit by Mr. Happy, the agent for M. Polonceau. This gentleman has already expended upwards of 5000l. on the concern, and having sold his interest in the patent, as above stated, must, if the company be dissolved, be a dead loser to that amount. For this reason, he warned them at their peril to break up the company. In this dilemma, the directors offered to the shareholders to return one-half of the deposit—viz., 11 per share—upon their signing a deed of indemnity to the directors. In consequence of this notification, the meeting on Monday was convened. Mr. King appeared to explain very satisfactorily the conduct of the directors; they had met with difficulties at every step, and, fearing lest all their capital would be swallowed if they did not take some decided measure, they had determined to offer the shareholders the above terms whilst they had it in their power to restore anything.—A solicitor appeared to watch the proceedings on behalf of Mr. Happy, but nothing decisive was agreed to, in consequence of the paucity of the meeting, which was for the same cause adjourned *pro forma* till a future day.

SHREWSBURY, OXFORD, AND CHESTER JUNCTION RAILWAY.—Last week we referred to the advantages which would be conferred on the public by the formation of this line; we have now authority to state, with reference to unfounded reports regarding it, that out of the twenty-four miles of railway, 15 miles have been received from the landowners on twenty-two miles, and that there is a certainty of obtaining the assent of those on the other two miles—that some of the principal landowners are to have a seat in the direction, and, what is of most importance to the shareholders, that the estimate of the engineer is more than ample to execute the railway, a tender having been received from the most eminent contractor of the day, Mr. Thomas Brassey, of the firm of Mackenzie and Brassey, to execute the whole works under 350,000l.—leaving 70,000l. to meet any possible contingencies.

CHEAP EXCAVATION.—The coal that will be taken from the Llanilleth Mountains, through which it is intended to cut a tunnel for the Newport and Nantyglo Railway, will, it is said, pay the expense of excavation.

"THE MINERS' WIDOW AND ORPHANS' FUND."

A meeting was held on Thursday, the 6th inst., at the Vestry Room, Red-rail, which was, however, but scantily attended, owing to the lateness of the ticketing, which took place at Andrew's Hotel that day; as also the shortness of notice, thus precluding several influential gentlemen from being present among whom we may mention Mr. Michael Williams, Mr. Humphry Williams, Mr. Vyvyan Robinson, Mr. Stephen Davey, Capt. Wm. Richards, and others.

Mr. DUGG, CHAIRMAN, in an able and energetic speech, opened the proceedings of the meeting, by describing the objects of the proposed fund—at the same time, paying a high compliment to Mr. English, for having brought the subject before the mining community—one he felt assured all must be anxious to uphold, and which would be more fully dwelt upon by that gentleman.

Mr. ENGLISH proceeded to state the motives which actuated himself and friends in calling the present meeting, and expressed his regret that pressure of time and circumstances precluded him from obtaining that assistance from parties who were good friends of the cause by their personal attendance, although he was happy to say that he had not only their good wishes, but promises of pecuniary assistance to carry out the object. He then proceeded to point out the advantages which must arise from the establishment of a fund having for its object the support of the widows and orphans of those whose lives might be sacrificed in the performance of their duty, and who had no claim save on the "Poor Law Union," or the slight assistance afforded them by the mine club. He could not conceal from himself that which was too manifest to others, that difficulties presented themselves having reference to the "Unions," and which had, indeed, been the subject of discussion with the numerous parties in Cornwall with whom he had conversed the question. All assented from the lord and adventurer to the agent and working miner, that a fund of the nature proposed would be a blessing to the county; but a difficulty arose which it was feared would preclude the objects of the bounty deriving from the contemplated advantages. It was notorious throughout Cornwall, that in cases of accidents, sickness, or death, if the person afflicted or the relatives received any relief from private channels, they were exempted from that of the Union, and hence any fund established of this nature would have the effect solely of relieving the Union, without adding comforts to the individuals for whose benefit it was instituted. This he (Mr. English) contemplated meeting on his return to London, by waiting on the Poor Law Commissioners, aided by the counsel and support of the Cornish Members, and he confessed, without some arrangement being entered into, it would be impracticable to carry out the object. It was, however, with much satisfaction he was enabled to state, that not only would subscriptions be forthcoming from out-adventurers, but that those interested in mines in the county, whether as lords, adventurers, engineers, merchants, or agents, would lend their willing aid. He had held a meeting at Callington, where a considerable sum had been subscribed. On the morrow he should proceed to the St. Austell and Fowey district, and from thence to Liskeard, and was confident that a large sum of money would be forthcoming from those districts. It was with pleasure he informed the meeting, that Mr. Michael Williams, who regretted that his other avocations would preclude him from attending the meetings of the committee, had expressed his utmost willingness to uphold and support the mine, and not only would he readily subscribe to the fund, but would use his personal endeavours to advance its interests. Mr. Humphry Williams had also expressed his readiness to co-operate, as had Mr. Vyvyan Robinson, Mr. Stephen Davey, Capt. Richards, Mr. Thomas Garland, and several others. Mr. Sims, who was present, had subscribed 5 guineas; Mr. Way, representing Perran and St. George Mine, 20 guineas; Mr. J. Lyle, on behalf of the several mines in which he was interested, 50 guineas; and others were named as subscribers to the fund. It was not, however, intended to call for one farthing until local committees had been formed, and that arrangements had been entered into with the Poor Law Commissioners—but in the mean time, it behoved the friends of the mine "One and All" to be up and stirring, and he doubted not the result.

Mr. GARLAND, after some observations on the advantages which must accrue on the success of the measure, and eulogising the course taken by Mr. English, who, whether success attended his efforts or otherwise, was highly deserving their commendation, moved a vote of thanks to that gentleman, which was heartily responded to by the meeting.

Mr. ENGLISH, in returning thanks, briefly mentioned that he had the authority of Mr. V. Robinson, Mr. Stephen Davey, and Capt. Wm. Richards, to place their names on the local committee, with power to add to their number, and that Mr. Garland had in the most handsome manner offered his services as hon. secretary to carry out the views of the meeting.—Some remarks having been made by other gentlemen present, the meeting adjourned.

A highly respectable and influential meeting of the supporters of this fund, and other parties connected with mines in the districts of St. Austell, St. Blazey, Charlestown, and the vicinity, was held, pursuant to notice, at the Packhorse Inn, St. Blazey, on Tuesday, the 11th inst.

NICHOLAS KENDALL, Esq., in the chair.

The CHAIRMAN, in opening the proceedings, briefly adverted to the notice which had been the cause of the meeting then convened, as also a letter he had received from Mr. English, requesting his attendance. He must confess himself ignorant of those details, which he presumed would be submitted to the meeting by that gentleman; but with every desire to promote an object which had in view the aid and support of the widow and orphan of the miner, he had readily attended. He wished, however, not to be considered as pledging himself to the support of any measures which might be proposed, not having had an opportunity of discussing it in detail, although there could be but one opinion as to the desirableness of the object. The Chairman called upon Mr. English to place before the meeting the main points to which their attention would be invited.

Mr. ENGLISH (having, on the part of Mr. J. T. Treffry, expressed his regret that indisposition precluded him from being present, although he gave his hearty support to the object of the meeting) stated, at some length, the object in view, which was that of the support, or aid, of the widow and orphans of those whose lives might be lost in mines in the county, and expressed the gratification he had derived from the meetings already held, and the communications he had held with parties largely interested in the mines in the county. He regretted to say that while the measure met with the advocacy and support of every one to whom it had been mentioned, there was one obstacle, and that he feared a formidable one; it was, that any private bounty would deprive the recipient of the allowance from the Union—and hence all that would be done by the establishment of the fund, would be to relieve the Union, but not to afford succour to those who were distressed, and whose claims on the lord and adventurer he considered not only deserving of support, but which would be cheerfully given. Up to the present time, he might, with confidence, say subscriptions to the amount of nearly 1000l. were promised, and he should not be satisfied until such sum amounted to 5000l.; but the Poor Law Union regulations raised an obstacle which, until overcome, he felt that all labour on his part, or assistance from others, was futile. He had conversed with the meeting, because it was his desire to convey to the Poor Law Commissioners the feeling entertained in the county; at the same time, any further steps he should defer until after his return to London. In speaking of the sources from which a fund was to be raised to effect the desired object, Mr. English remarked on the amount received by the lords, which, if taken at one-fifth of 1,250,000l.—the value of the ores produced—would amount to upwards of 80,000l. per annum; 1 1/2 per cent. upon this, would give 1000l. per annum. The ore sold would, at an insignificant charge, say on 200,000 tons, at one farthing per ton, produce 2000l.; while the value of the property in mines, held by in and out-adventurers, would require but a very minute subscription to allow an equal sum; indeed, he felt convinced that at least 4000l. or 5000l. might be reckoned upon from this source. Again, there was the Duchy of Cornwall, the merchants, agents, and that portion of Cornishmen and the public which was ever to be found ready to uphold an institution based on the principles of charity and humanity. He might add to this the voluntary contributions of the working miners; there were 40,000, he would assume, whose subscriptions of 2d. per month would give no less a sum than 4000l. a year; this, however, he would not calculate upon, but suppose even 5000l. or 1000l. a year, this would augment the income, and enable the fund to do much to the support of the widow and orphan. He was not prepared to enter into detail, indeed, under circumstances, it would not be politic to do so; but he might remark that the object of the institution was to confine it to the aid of widows and orphans of miners, who might lose their lives by accidents; if, then, he took the number of families at 100, requiring support, an allowance of 5s. per week would cause an annual outlay of 1800l., which would be met by the miners themselves; of this he entertained no doubt. Let it, however, be considered, that as time advanced, there would be an addition to the claimants on the fund, and thus further funds required; this he considered met by the mode in which he proposed to raise the funds, and if evidence were necessary, he had only to observe that he had received promises of support from Mr. Michael Williams, Mr. Humphry Williams (as smelters), Mr. V. Robinson, Mr. Stephen Davey, Captain William Richards, Mr. J. Lyle, Mr. Way, and others (as miners), and from Mr. W. West and Mr. Sims (as engineers), on holding the meeting at Redruth, which convinced him all that was necessary was the formation of the institution on a basis, which, like the mines themselves, he hoped would last for ever. He did not feel in a position then to enter into detail, for the reasons already assigned; but having the concurrence and support of the meeting, he hoped on an early day to place the subject before the miners in a more tangible shape, and that having either got rid of, or made arrangements with, the "Union," they would be found united in the advancement and successful issue of the object in view. In advertising to the allowance of 5s. per week, he had merely done so by way of illustration, as he was not prepared with any statistics; and, indeed, the funds once raised, it must be left with the several local committees, to determine the best course to adopt. It might be desirable to give a sum of money to provide for the family at the time, and much would depend on the circumstances in which they were placed, and the assistance required. The further observations of Mr. English were generally directed to the object of the mea-

FRIDAY—Adair's Ma 16—Buddie's West Hartley 16—Carr's Hartley 17—Fonham
Hartley 14 6—Hastings' Hartley 16 6—Holyston's Main 17—Morrison's Hartley 15 6—
Olson's West Hartley 16 9—Ravenworth's West Hartley 16 6—Tandell's Moor 19 6—
Stacy's Wylam 16 6—Wylam 19 6—Wain's Kild Bell and Brown 18—Clarke and Co 16—
Hartley 16 6—Hartley 17 6—Kilburne 17 6—Newmach 16 6—Eden Main 16 6—Bent
19 3—Braddilly's Hutton 20 6—Sherrington 17 6—Hartley 16 6—Hartley 16 6—
Russell's Hutton 20 6—Kilburne 20—Stewart's 20 6—Wain 17 6—
Hartley 20—Leasinghore 16 6—Adelaine 26—Barrett 18 3—Fox 17 6—South Duff
Hartley 17 6—Seymour Ties 19—Cowpen Hartley 17—Lewis's Metherby 21—Morgan's Stone
Hartley 17 6—

